

Empowering Yemen's fisheries: A strategy for reform through public-private partnerships

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About

The Executive Bureau for the Acceleration of Aid Absorption and Support for Policy Reform

The Executive Bureau for the Acceleration of Aid Absorption and Support for Policy Reforms (Executive Bureau) was established in 2013 to improve the government of Yemen's absorption of pledges from development partners. The overall objective of the Executive Bureau is to work closely with government institutions to accelerate the absorption levels of foreign funds to implement development projects. The Executive Bureau also has the mandate to improve the government's capacity through technical support provided by donors in the form of consultancies, expertise, and capacity building. The Prime Minister of Yemen chairs the Executive Bureau's board of directors.

The International Growth Centre

The International Growth Centre (IGC) works with policymakers in developing countries to promote inclusive and sustainable growth through pathbreaking research. The IGC is a global research centre with a network of world-leading researchers and a set of country teams and policy initiatives engaged in Africa, South Asia, and the Middle East. Based at London School of Economics and in partnership with the University of Oxford, the IGC is majority funded by the UK Foreign, Commonwealth and Development Office (FCDO).

The State Fragility initiative

The State Fragility initiative (SFi) is an IGC policy initiative that aims to work with national, regional, and international actors to catalyse new thinking, develop more effective approaches to addressing state fragility, and support collaborative efforts to take emerging consensus into practice. SFi brings together robust evidence and practical insight to produce and promote actionable, policy-focused guidance in the following areas: state legitimacy, state effectiveness, private sector development, and conflict and security. SFi has financial support from the UK Foreign, Commonwealth, and Development Office (FCDO) and The Rockefeller Foundation.

Abbreviations

BOO	Build-Own-Operate
BOT	Build-Operate-Transfer
CC	Consultative Council
ESG	Environmental, Social, and Governance Transparency Standards
FCDO	Foreign, Commonwealth and Development Office
GIZ	Gesellschaft für Internationale Zusammenarbeit
IGC	International Growth Centre
MoAIF	Ministry of Agriculture, Irrigation, and Fisheries
OBA	Output-Based Aid
PPP	Public-Private Partnership
UNDP	United Nations Development Program
USP	Unsolicited Proposal
VFM	Value for Money
VGf	Viability Gap Funding Grants

Executive summary

The fisheries sector in Yemen holds significant potential to generate employment for Yemenis, contributing to the country's much-needed food security and boosting foreign exchange earnings for the economy. Yemen boasts over 2,500 km of coastline and access to both the Red Sea and the Arabian Sea, which are rich in fish and crustacean resources. Due to its strategic geographical position and these abundant marine resources, the fishing industry has been a vital source of food and employment for Yemenis living along the coastline for millennia. Since the onset of the civil war in 2014, the strategic importance of the fisheries sector has increased: with 17 million Yemenis facing food insecurity, the sector must now play an even more critical role in ensuring a stable domestic food supply and providing opportunities for economic growth in this fragile state and its citizens.

However, the fisheries sector in Yemen faces numerous structural challenges that have been exacerbated by the damage, disruptions, and insecurity caused by the ongoing civil war. For instance, Yemeni fishermen often lack the basic equipment and vessels necessary to improve both the quantity and quality of their catch. Most of Yemen's remaining artisanal fishing boats can only operate near the shore, preventing access to the country's deeper waters, where fish stocks, species diversity, and resources are more abundant and fetch higher prices. The sector urgently needs new investments, improved skills, and comprehensive sector data to revitalise its infrastructure and equipment. Fishing vessels, landing sites, harbours, inspection facilities, processing and canning factories, cold chain storage facilities, and export logistics management systems have all suffered significant damage due to the war, are poorly maintained, or have ceased operations altogether. For the sector to become a reliable food source for communities, substantial investments are needed across the entire supply chain.

The scale of investment needed for Yemen's fisheries sector cannot be shouldered by the Internationally Recognised Government (IRG) alone. Public-Private Partnerships (PPPs) present a viable path forward by allowing the government and the private sector to collaborate and share the costs and risks of investment projects. However, these complex and lengthy financial arrangements require a high level of trust and capacity from both sectors, neither of which is currently present. Yemen's state apparatus, which includes functioning ministries such as the Ministry of Agriculture, Irrigation, and Fisheries (MoAIF), the Ministry of Finance, and other sectoral authorities, lacks a functioning Parliament. This absence means that no new official laws can be passed. Also, the state's capacity to sustainably manage its marine resources remains limited. These challenges have historical roots, dating back to before the civil war when the government began gradually divesting its role in fisheries production following reunification in 1991. Today, the government primarily fulfils a regulatory role, while the maintenance of critical infrastructure remains either incomplete, outsourced to other actors, or abandoned altogether. This trend has significantly reduced the capacity of the MoAIF, a capacity unlikely to be rebuilt without substantial investments in infrastructure and human resources.

To implement the necessary changes in Yemen's fisheries sector, private investment is essential. Over the past 33 years, and particularly in the last decade, trust and cooperation between various stakeholders—especially the government, private fishing firms, and fishing cooperatives—have significantly declined as the sector's performance has worsened. Mutual

blame between private and public sectors has impeded cooperation, while neither sector alone has the data, skills, financial resources, or strategic plans needed to execute the critical initiatives and projects that are clearly required.

The proposed reforms for Yemen's fisheries sector, driven by PPPs, are designed to achieve two key objectives. First, they aim to develop a robust plan for re-establishing institutional cooperation. Second, they seek to empower both government and private sector leaders to identify, prepare, and implement essential reforms, projects, and investments needed to unlock the sector's full potential. Successful execution of this PPP strategy will depend on substantial financial and technical support from various donor organisations and multilateral development banks. Without firm commitments from key supporters such as the FCDO, World Bank, UNDP, GiZ, USAID, and other influential entities, significant improvements in the sector's performance are unlikely.

To tackle critical issues in the fisheries sector, the MoAIF has engaged the International Growth Centre (IGC) and the Executive Bureau (EB) for the Acceleration of Aid Absorption and Support for Policy Reforms. Their task is to survey stakeholders, analyse available data, and develop viable reform strategies through collaborations between Yemen's public and private sectors. The IGC-led project relies on an extensive literature review and in-depth interviews with key stakeholders and leaders. Additionally, insights were gathered from two widely attended workshops organised in partnership with the MoAIF. These workshops aimed to elucidate the concept of PPPs and illustrate their potential benefits for the fisheries sector. The consultations included officials from the MoAIF and regional fisheries authorities, scientists from the Fisheries Research General Authority, and leaders from private companies involved in fishing, processing, or seafood export.

The direct stakeholder consultations identified several priorities for the sector:

- **Fish stock study:** Yemen's latest fish stock study is clearly outdated, having been done in the 1990s. While plans have been drafted and discussed during the past 15 years to conduct a new study, they have not been implemented. This constrains the government's ability to sustainably manage marine resources, as well as the private sector's ability to plan where to fish and how much can be sustainably caught without depleting resources. Private sector actors are also wary of investing without knowing the sector's production capacity. A new, modern, customised, and complete fish stock study for Yemen should be designed, funded, and implemented as soon as possible.
- **Improvement of fisheries infrastructure and equipment:** As the sector's value-chain of vessels, equipment, and facilities have all either fallen into disrepair, ceased to operate, or not been maintained for years, the sector needs specific project plans, funding, and capable management to rehabilitate existing infrastructure and assets, or design, construct and operate new ones.
- **Improve fish product exports:** The war has made it costlier to export seafood, as well as reduced the number of operating facilities that can produce international-quality seafood products for export. Critical ancillary infrastructure has also been damaged, such as roads, ports, and logistical management systems and equipment. Additionally, the global surge in fuel prices since 2022 has made it even more difficult for all actors in the sector's value chain to meet their basic operating costs. One specific priority

agreed upon by almost all private sector firms and stakeholders consulted is that Yemen needs the Government to lead in creating the enabling conditions, regulatory systems, and quality facilities to improve and expand Yemen's fish product exports, especially to new markets.

- **Better and more reliable enforcement of existing sector regulations:** Both public as well private sector leaders agree that the Government's skills, resources, and capacity to enforce existing fisheries regulations is inadequate. This continues to constrain sector performance in areas such as inspecting fish catches, as well as enforcing sustainable fishing levels from its fish stocks (including from foreign commercial vessels operating in Yemen's territorial deep-sea waters). As a result, overfishing, especially from foreign vessels, is reportedly widespread, threatening the catch of artisanal fishermen, while accurate data on this practice is not available.

A key takeaway from our interviews is that overcoming the complex, interrelated constraints and gaps in the fisheries sector requires both enhanced coordination among stakeholders and significant capacity development. While many actors are already working to address various barriers through pilot and demonstration projects, these efforts are often decentralised and lack coordination due to ongoing security challenges in Yemen. As a result, there has been limited ability to create synergies between projects and address priority initiatives systematically. To tackle the sector's substantial barriers, a more extensive and sustained commitment from all stakeholders is essential. A crucial first step is to improve collaboration and coordination among all involved parties.

When designing a sustainable collaboration system for the sector, it is crucial to ensure that it effectively addresses the following priority requirements identified by key players from the government, private sector, and donor organisations:

- **Additional sector financing:** The MoAIF has very limited resources to build or restore the infrastructure needed, including vessels, fish landing sites, inspection facilities, processing factories, as well as ancillary infrastructure requirements like roads, and reliable electricity generation. Likewise, the Government is currently unable to help fishermen finance the necessary equipment upgrades that they need, such as larger, deep-water boats and ice for preservation. International Organisations and donors have helped bridge the financing gap by funding several demonstration projects in the country. However, much more needs to be done for the sector. One way to address these gaps more effectively is through PPPs, which can solve the government's short-term liquidity constraints by using private sector financing. It can also reduce costs when construction and maintenance is bundled or when financiers require more accountability from private actors than public ones. Under the current levels of mistrust between government and fishermen, the private sector may also be better able to levy user fees. As noted previously, because of the current low sector performance and limited affordability of most stakeholders in the sector's value-chain, many of the initial PPP projects will require significant funding support from donors (such as viability gap funding grants or "blended financing") to be commercially sustainable. As sector performance and export earnings improve, less donor and public sector support will likely be required.

- **Capacity and skills development:** Both the private and public sector currently have limited capacity in terms of human resources and skills. Many veteran stakeholders consulted noted that this trend dates back to the 1991 reunification. Government stopped funding and delivering many of its services for the sector, including investing in training the next generation of fishermen, regulators, planners, and managers. At the same time, the war has made the environment much more difficult to develop basic sector plans and to carry them out predictably. Clearer institutional collaboration between the public and private sector would allow the MoAIF to draw on private sector expertise to deliver services in specific areas and for defined projects where the private sector has capacity. This could include a broad range of projects and services from maintaining fishing vessels managing, operating and maintaining fish landing stations, harbour facilities and equipment, maintaining reliable fish inspection facilities, processing and canning factories, cold chain storage networks, as well as marketing, promoting, and managing increased seafood exports through more efficient logistics management systems, etc.
- **More reliable enforcement:** If specific and contractually defined parts of the MoAIF's role are entrusted to the private sector, it will remain officially responsible for the enforcement of minimum quality standards. These required levels of performance (including technical quality and safety, etc.) need to be clear, measurable, and legally enforceable, so that the MoAIF can effectively monitor the performance of the private actor. Moreover, to play this role of "PPP Contract Manager" effectively, MoAIF will need new skills and performance monitoring resources, and data collection and verification systems, to be able to ensure such contracts are sustainably managed and properly enforced (especially in managing any cases of failure of the private partner to perform, according to the detailed PPP contract).
- **Rationalised and more efficient sector regulations:** Yemen's current sectoral regulations and laws lack clear provisions for formal collaboration between private and public actors, particularly in endorsing priority sector needs. Effective collaboration should involve jointly selecting and announcing viable plans and projects for critical sector improvements, including PPPs where appropriate. The ongoing civil war has hindered the government's ability to pass new laws. However, improved mechanisms for official collaboration can still be established within the existing legal framework. To address this, the Ministry of Agriculture, Irrigation, and Fisheries (MoAIF) should undertake a comprehensive review of all relevant laws and ministerial decrees regulating the fisheries sector. This review, conducted in Arabic by qualified legal specialists, should also encompass laws and decrees related to the procurement process for preparing, tendering, and awarding PPP contracts. Additionally, the review should cover contract laws, property laws, financing and investment laws, and export-related regulations. Understanding these regulatory boundaries is crucial for determining the legal feasibility of various PPP projects and contracts in Yemen's fisheries sector.
- **Effective collaboration:** The sector currently involves a diverse array of stakeholders, including various government bodies, international organisations, private sector companies, fishermen, and fishing cooperatives. Over decades,

mistrust between the private and public sectors has become entrenched and is now perceived as the norm. The MoAIF can play a pivotal role in rebuilding this trust by articulating a clear long-term vision. By establishing an official mechanism for public-private sector consultation and cooperation and demonstrating to donors its commitment to seek support through funding and technical assistance, the MoAIF can facilitate the preparation and execution of significant PPP projects. Such projects have the potential to enhance sector performance, foster further public-private collaboration, and achieve critical national objectives, including improved food security, increased employment and economic opportunities, and greater exports and foreign exchange earnings. Consequently, a crucial initial step is to create a dedicated platform where stakeholders can convene, express their views, and build consensus.

Recommended reforms

In light of these constraints, this report recommends that the MoAIF seek opportunities to leverage the private sector's resources and expertise to address specific issues within the sector. This can be effectively achieved through PPPs, as outlined in the report. PPPs involve a collaborative agreement between a government entity and a private sector firm, wherein the private sector assumes responsibility for delivering or managing a service or infrastructure. This arrangement is carried out under the oversight and monitoring of the government, based on clearly defined performance standards. For PPPs to be successful, the active engagement of the MoAIF is essential, as the ministry will be responsible for the preparation, evaluation, awarding, management, and monitoring of these projects.

To effectively initiate and manage PPP projects, this report recommends establishing a Consultative Council (CC) within the MoAIF, which is supported by a technical Secretariat. In many countries, PPP projects are handled by specialised units known as PPP Units or "PPP Nodes" within relevant ministries. Similarly, a CC could be established by ministerial decree to perform the functions of these units, as advocated by a majority of Yemen's fisheries stakeholders. This Council should include representatives from key sectors, particularly fishing cooperatives, processors, and exporters, to ensure comprehensive stakeholder involvement and effective project execution.

The role of the CC is to streamline the process of selecting, studying, preparing, and monitoring PPPs and to create a clear, institutional space where key stakeholders can discuss and agree on specific priority investment projects and services. The CC's key responsibilities are:

- **Create a pipeline of PPP projects:** By bringing-in key stakeholders from various stages of the value chain, the CC will be well-positioned to develop a pipeline of projects that can leverage public-private collaboration effectively.
- **Conduct feasibility assessment:** The CC will be responsible for overseeing, reviewing, and recommending the approval/disapproval of candidate PPP projects. This role will focus on assessing whether a PPP project is fully feasible or not. PPPs must be analysed to determine whether they are technically feasible, legally allowable, financially and commercially "bankable" as well as affordable, environmentally sustainable, socially just and inclusive, and supported by all affected stakeholder

groups. Since high-level leaders providing oversight decisions within the CC will neither have the time nor expertise to conduct such detailed PPP project preparation, they will need to be supported by a dedicated Secretariat of skilled PPP specialists with experience in maritime technical standards, technical operations, engineering, finance, law, and Environmental, Social and Governance (ESG) standards.

- **Set up monitoring systems:** When commissioning PPPs, the CC will review and approve the PPP contract's output performance standards that the private sector needs to meet. Such technical, financial, legal, environmental, social, and other performance standards will be drafted by the CC's supporting Secretariat of PPP specialists but reviewed and approved/disapproved by the CC's members.
- **Build capacity:** By requesting specific vocational and PPP management training for Yemen's public and private sector actors, the CC can build new capacity and skills in the sector. Notably, it will be charged with enhancing the comprehension of PPP concepts and improving project management skills. The Secretariat can research and outline specific Training Needs Assessments (TNAs) for the CC to review, approve, and request donor funding and technical assistance support for delivery of specific training events and programmes.
- **Advocate for PPPs:** The CC is to become both a source of sector leadership as well as a source of expertise in PPPs, together with its dedicated PPP Secretariat. It will become a central resource for other actors within the MoAIF and a point of reference for the private sector. The CC will also advocate for policy reforms that facilitate and encourage PPPs, promoting options that are clear and implementable in Yemen. Additionally, it will engage with relevant policy officials and international organisations to disseminate insights and lessons learned from PPP projects. Major donors and multilateral development banks supporting Yemen's fisheries sector already possess established PPP technical assistance resources, knowledge hubs, project preparation funds, as well as models and templates for feasibility studies, contracts, tender documents, and training.

The Consultative Council will represent a crucial, practical institutional step toward fostering effective collaboration between public and private sectors. By establishing a structured forum for dialogue and consensus on sector priorities, the Council will facilitate trust-building and ensure that available resources are allocated to the most pressing projects.

1. Introduction

The fisheries sector has been an integral part of Yemen's economy and culture for several millennia. Ideally located at the intersection of the Arabian and Red seas, Yemen is home to a rich marine ecosystem, including near-shore artisanal fishing as well as larger, deep-water fish stocks. Tuna, sardines, and crustaceans, all of which could be exported, are widely found in Yemen's territorial waters. As a result, fishing has always been an important source of food and employment to many Yemenis living along the coastline.

Despite the considerable opportunities, nearly a decade of war has taken its toll on the fishing sector and on the national economy and its infrastructure more generally. Critical facilities necessary to produce, process, and export fish have been severely damaged, had to shut down, or have not been maintained for years. Fishermen lack the equipment necessary to

improve the quantity and the quality of their catch, meaning most fish are sold for local consumption and fish products exports have severely declined.

Moreover, it is impossible to manage, preserve, and improve any economic sector's performance without access to verified and reliable data on volumes, types, and locations of available supply resources. Accurate and usable data on Yemen's critical fish stocks is missing, and studies are out-of-date. Exporters struggle to sell to international markets because of the difficulty in meeting sanitary and food safety standards. This is due to decreased volumes of fish caught, inspection processing and facilities that have not been maintained, and the increased level of perceived risks by international fish traders of importing products from a civil war zone. Additionally, the government is officially charged with enforcing regulation, taxation, and fee collection, such as at fish landing stations (FLS), but it only does so with great difficulty. Sector reports and stakeholders consistently noted that fisherman seek to avoid using FLS, to avoid paying fees, and that delays in inspections by Government Regulators leads to fish spoilage. Furthermore, illegal fishing by international commercial fleets in Yemen's deep water is rife, leading to overfishing. The Government lacks the vessels, trained patrols, and other resources to protect its own deep water fish stock resources and enforce legislation against illegal commercial fishing.

This PPP Policy and Strategy Report examines the key constraints to the growth of the fisheries sector. It then proposes a specific PPP policy strategy, including the creation of a Consultative Council, that is designed to harness private sector investment and private sector expertise to finance improvements in the sector. Finally, it proposes several complementary reforms that will bolster the impact and effectiveness of PPPs.

This report is based on an extensive literature review of Yemen's fisheries sector. To augment this analysis, interviews were conducted with eight key stakeholders, including General Directors from public authorities and the Ministry of Agriculture, Irrigation, and Fisheries (MoAIF), as well as CEOs of private fish production, processing, and exporting companies, and heads of fish cooperatives. These stakeholders were selected to represent the principal actors within Yemen's fisheries sector: national policymakers, laboratory scientists, and leaders in fish processing and export. Additionally, to capture a wide range of perspectives and recommendations on the sector's needs, the IGC gathered feedback from over 40 public and private stakeholders during two workshops titled "**Introduction to PPPs in the Fisheries Sector**," held at the MoAIF in January 2024.

The findings of this report are organised as follows: The first section outlines the opportunities and challenges facing Yemen's fisheries sector. The second section explores Public-Private Partnerships (PPPs) as a viable solution to these challenges, emphasising the need for support and further development. The third section details the implementation of PPPs, focusing on their application to specific functions, facilities, and services within the fisheries sector.

2. Context and key constraints to growth in the fisheries sector

Yemen's fishing sector has significant potential for increased production, economic growth, and foreign exchange earnings through exports. Strategically positioned on the Arabian Peninsula, Yemen boasts coastlines along the Red Sea and the Gulf of Aden, offering over 2,500 kilometres of shoreline. These territorial waters are home to a rich marine ecosystem teeming with a diverse array of species, including tuna, sardines, shrimp, and various crustaceans.

For millennia, the fisheries sector has been a critical, traditional source of food security and of jobs in Yemen. Prior to the civil war, the sector represented an estimated 15 percent of GDP, with around a million people involved in the production, processing, and exporting of fish (USAID, 2019). It was second to only oil and gas in terms of Yemen's export earnings, with 11% of all exports coming from the fishing industry, making the fisheries an important source of foreign currency earnings for the state. With 17 million Yemenis currently food insecure, the sector has become central in improving Yemen's food independence and decreasing its reliance on donor food programmes. However, to achieve these different aims, the sector will have to address an inter-related combination of challenges.

This section reviews the main actors involved in the sectors before highlighting several barriers to growth.

2.1. The role of fish cooperatives and of the private sector

In Yemen's fisheries sector, the private sector can be divided into two major players: artisanal fishermen and fishing cooperatives in charge of production, and private sector companies in charge of processing and exporting fish.

The majority of the production is currently done by traditional or artisanal fishermen in small vessels suited for shallow waters close to shore, where fish supplies are limited. Based on the latest number from 2018, there were 70,000 fishermen operating in Yemen (USAID [2019]). Artisanal fisheries are characterised by their small-scale, with low levels of income and generally low levels of catches of shore-based fish. Most fishermen use small open-decked wooden or fibreglass fishing vessels. Most fishing trips are short, rarely exceeding 8 days. Once the fish are caught, they are usually salted or dried for preservation. They are then brought back to shore, normally at fish landing sites (FLS), where they are weighed, registered, inspected, and auctioned.

Yemen's fishermen are mostly organised in cooperatives, established through decades-long relationships. These cooperatives are officially recognised by the MoAIF. There are about 70 cooperatives active in Yemen. Their role is to support small-scale fisheries. Fishermen pay a membership fee, which gives them access to the cooperative's services and facilities. This includes auctioning, marketing, maintenance, training, as well as additional services such as healthcare and access to credit. However, due to the civil war and the subsequent declines in sector production and earnings, it has been reported by a series of key stakeholders that most

cooperatives can no longer afford to provide most these services, especially the non-core services like healthcare and access to credit.

Before the civil war, some cooperatives were also involved in the processing and exporting of seafood products. According to key sector leaders, all cooperatives have since had to stop those activities due to their financial constraints, with only a limited number of private firms still try to operate in the processing and exporting functions. Cooperatives need to register to the Ministry of Agriculture, Irrigation, and Fisheries (MoAIF), which is supposed to supervise and monitor their activities and performance, as required by their registrations with the Ministry. However, MoAIF officials have indicated that they no longer have the funding and the skills to do this effectively. As a result, fish cooperatives' capabilities and performance have declined as well.

Private sector companies are seldom directly involved in the production process. Instead, they mainly focus on the next step of the value chain: buying and processing fish and exporting fish products when possible. Seafood processors include canneries and fish drying factories. These companies struggle to meet all operating and maintenance costs during recent years and are predictably reluctant to seek new financing for facilities renewals, expansions, or upgrades, as fish volumes have declined, and sector uncertainty remains high. According to one of the latest studies of the sector, an estimated 25% of fish caught are exported. Fish are either sold to local and regional markets or, when possible, exported internationally. Most exports are sold to other countries in the Arabic peninsula, such as Saudi Arabia, Oman, and the UAE. Additionally, the latest information available is that there are no commercial, deep-water factory vessels operating in Yemen at the present.

Aquaculture, despite its potential, has not yet been developed on a significant scale by Yemen's private sector. In the 1980s, the first aquaculture centre was established in Al-Breqah. It raised shrimps and four types of fish. However, due to lack of skills, experience with managing aquaculture, as well as inadequate maintenance, this pilot aquaculture centre closed its operations. Other similar donor-funded initiatives in the sector have been set up during the past two decades, but again many have stopped due to limited experience and to lack of further funding available to project operators.

2.2. The role of the government

The main government body in charge of fisheries is the Ministry of Agriculture, Irrigation, and Fisheries (MoAIF). The MoAIF was created in December 2020 with the merger of the Ministry of Agriculture and Irrigation and of the Ministry of Fish Wealth.

Since the 1990s, the ministry has shifted away from an active role in fish production and has focused more on regulation. This shift reportedly occurred due to uncertainties faced by the newly formed unity government, competing political interests, and the belief that the fisheries sector could largely sustain itself through existing cooperatives, traders, and exporters. Before unification, state-owned enterprises were directly involved in fish production, including operating large-scale deep-water vessels, but this was discontinued after 1992. Similarly, due to resource constraints, the ministry stopped supporting capacity building for its staff and funding many of its regulatory, inspection, and monitoring functions.

The MoAIF is responsible for the long-term strategic planning for the fisheries sector. The current legislation framework is the Fishing Law 2/2006. The law sets standards on how the production should occur and how the fish should be stored and processed. For example, the law sets requirements on the net mesh size, the length of boats, the cleanliness of fish holds. Fishermen are legally required to pay 3% of the value of their catch as a form of tax to the MoAIF agents at the FLS. According to the law, the ministry is legally required to oversee the management of all marine resources, setting regulations that limit fishing in the off-season and regulating the number of international fishing boats officially licenced to operate in Yemen's territorial waters. As Yemen has very little resources to fund any patrolling of Yemen's deep-sea waters to enforce such international licensing, accurate data on the scale of illegal international commercial fishing in Yemen's deep-sea waters is not available.

According to the law, the MoAIF is officially responsible for setting and enforcing quality standards for fish. The Yemeni General Authority for Standards is legally tasked with issuing specific standards for all food produced in Yemen, including seafood. Government-owned laboratories are responsible for inspecting and ensuring that these quality standards are met. Additionally, the MoAIF is supposed to set quotas on the amount of fish that can be exported, and exporters are required to pay a fee to the government for the right to export fish. The MoAIF also is required to collect data on the volume of fish produced and exported. However, many of these official functions and duties are not fully implemented due to the ongoing civil war and the decline in the sector's productivity.

2.3. Other key stakeholders

Laboratories

Laboratories mainly oversee the testing of the safety and quality of fish exports, making sure that they meet international food standards. They do so by collecting samples of the exported fish. They are generally state owned, although some private laboratories are used for specific tests. The three main laboratories are: Aden Lab AlTawhy, Mukalla Lab, and Al Mahra Lab.

The Fisheries Research Authority, a statutory Authority under the MoAIF, has the official role of overseeing research to support fisheries management, to develop Yemen's aquaculture potential, and manage the marine environment. Notably, this centre is charged with collecting data on stocks to monitor its evolution. Due to a lack of resources, it has not been able to conduct a stock assessment. In 2012, with support of donors, the Government developed a new National Fisheries Strategy for the period 2012-2015 (Republic of Yemen Ministry of Fish Wealth, 2012). This assembled available reports and data and used a basic extrapolation methodology to estimate what current fish stocks would be, based upon the last full study done in the 1990s. Moreover, this Strategy called for the priority initiation and completion of new, comprehensive and updated Fish Stock Study. However, due in part to delays in its implementation and to the civil war, the contract for this study was not tendered.

Fisheries Authorities

There are four Fisheries Regional Authorities. Their role is to implement policies and regulations from the MoAIF. They are the ones to administer fishing licences, collect levies from fishermen, collect data on the volume of production, which they then transmit to the

MoAIF. They also administer trainings to fishermen to improve their technical, vocational, and management capacities.

International organisations

Yemen's fisheries sector has received support from several international organisations and donors. This has taken the form of financial assistance to MoAIF's functions, such as providing better equipment and facilities to selected cooperatives in specific regions and ports. GiZ, for example, has provided ice boxes to fishermen as part of one its specifically targeted pilot projects. International organisations have also helped invest in sector facilities, such as fish landing sites. Finally, they have also provided technical assistance, either to fishermen in the form of training or to government in helping draft a fisheries Sector Plan and sector development strategy (as mentioned above). The security situation in Yemen since 2014 has constrained the ability of donors to reach fishermen across the whole country. The main organisations active today are the World Bank, UNDP, FCDO, the EU, the large NGO "SMEPS" (Small and Medium Enterprise Project) supported by 7 leading local NGOs, and a range of other international donors, including GiZ.

2.4. Constraints to growth

Despite the potential of Yemen's marine ecosystem and traditional fishing know-how, the sector has struggled to maintain its production level. In 2022, the Food and Agriculture Organisation (FAO) estimated that Yemen's production was 230,000 tonnes. Oman, its neighbour, with a coastline of 1,700 kms, a population just 13 percent of Yemen's, and a GDP five times greater than Yemen's, produced over 400,000 tonnes that same year.¹ Our research and interviews with key, high-level sector stakeholders highlighted the following key constraints:

- **Lack of enforcement and security:** the ongoing instability has significantly weakened the State's ability to ensure the safety of fishermen and enforce existing regulations. The conflict has directly impacted the fishing community, with over 300 fishermen losing their lives. The lack of security severely limits the areas where fishermen can safely operate. Additionally, the State's diminished capacity means that the government cannot effectively monitor fishing activities to ensure compliance with standards for production, storage, and processing throughout the supply chain. Damage to the coastal authority's patrol vessels has further hampered the government's ability to prevent overfishing in its territorial waters. This situation is exacerbated by illegal, unregulated, and unreported (IUU) fishing conducted by large-scale foreign commercial vessels. Consequently, this has led to significant depletion of Yemen's fish stocks and has adversely affected the catches of Yemeni fishermen.
- **Lack of functioning, modern equipment for fishermen:** traditional fishermen rely on smaller artisanal boats that do not allow deep-sea fishing. This constrains how much

¹ See :

[https://omannews.gov.om/topics/en/80/show/110599#:~:text=Muscat%2C%201%20Nov%20\(ONA\),Statistics%20and%20Information%20\(NCSI\).](https://omannews.gov.om/topics/en/80/show/110599#:~:text=Muscat%2C%201%20Nov%20(ONA),Statistics%20and%20Information%20(NCSI).)

fish they can catch in one outing. Fishermen also lack other functioning equipment: most boats do not carry ice on board, which jeopardises the quality of the fish before it is back on land. Moreover, even when boats have been donated to local cooperatives, they lack the funds to be able to maintain them.

- **Damages to infrastructure:** a range of sector infrastructure has greatly suffered during the war, due to military damage, operational shutdowns, and a long-term lack maintenance and repairs. This includes fish landing sites, which often operate without the necessary equipment to ensure that the quality of the fish is preserved and safe for sale, processing, and consumption. The war has also damaged roads, ports, and airports, making the transportation to local or international markets much less certain and more costly for traders or exporters. Damages to harbours, landing sites, and boats have been estimated at USD 6.9 billion (IGC, 2023).
- **Lack of data:** Yemen's government faces significant challenges due to its inability to conduct a full and updated study of its crucial fish stocks along the 2,500 km of shoreline and deep-sea waters. This absence of data impedes the creation of an effective and sustainable fisheries management strategy. The private sector is also reluctant to invest without clear information about the production potential, further constraining the industry's growth. Climate change compounds this problem as warming and acidification of the seas cause fish stocks to migrate, requiring more precise assessments. Stakeholders, including those interviewed and trained, unanimously agree on the importance of regular and comprehensive fish stock assessments. Such assessments are vital for tracking changes and developing a robust management and development strategy for the sector. Encouragingly, there are indications that one of the international donors has committed to conducting a fish stock assessment. This development is a positive step forward.
- **Poor relationship between private and public actors:** there is an ongoing lack of trust between private and public actors. Private sector leaders believe that the government does not do enough to enforce regulations and to prevent overfishing in Yemen's territorial waters. The Government says that fishermen are avoiding the taxes they owe government. Both parties have suffered from the impacts of the war and the government's long-term pattern since 1991 of underfunding the sector and reducing its involvement in planning, policy, and regulation. Despite this lack of trust, leaders on both sides agree on several priority projects and initiatives necessary for the sector's development. These include forming a Coordinating Committee (CC) and a supporting professional Secretariat, conducting an updated fish stocks study, rehabilitating sector facilities and infrastructure, enhancing vocational and management skills for both public and private sectors, and improving access to export markets.

Another overarching issue in the fisheries sector is the lack of coordination between the different actors. This prevents the design of a coherent sector strategy. While many individual and pilot projects are currently being carried out by different donors to improve the sector, they are often done in silos. The lack of coordination means that potential synergies between potential projects are ignored. The lack of consultation between different actors also further increases distrust between actors. Moving forward, it is important that trust is restored and that

the MoAIF plays a central role in coordinating stakeholders active in the sector. One way to introduce more investment and to build more collaboration is to encourage public-private partnerships (PPPs). The next section will cover how PPPs can be used to address the sector's key constraints.

3. Public-Private Partnerships in the fisheries sector

A **Public-Private Partnership (PPP)** is a collaborative arrangement between the government and the private sector designed to deliver public services, infrastructure, or projects. In this contractual agreement, the private sector takes on the responsibility of delivering the service or managing the infrastructure, which is traditionally handled by the public sector. In return, the private entity receives specific economic benefits over an agreed-upon period.

Unlike privatisation, where ownership and control are transferred entirely to the private sector, PPPs allow the public sector to retain legal and public responsibility. This ensures that the services or infrastructure provided meet predetermined quality standards, safeguarding the public interest while benefiting from private sector expertise and efficiency.

3.1 Benefits of PPPs

When properly designed and implemented, PPPs have potential to facilitate timely, more cost-effective, innovative, and commercially competitive service delivery, generate efficiency gains, mitigate risks, and foster innovation in project designs, technologies, and operating procedures. The benefits of PPPs can be summarised as followed:

- Cost saving through 'bundling': PPPs that integrate different aspects of project design; construction, operations, and maintenance can reduce cost as the private actor is incentivised to reduced costs along the whole project cycle. This differs from traditional procurement where government often contracts several private sector providers to deliver different aspects of the project. This disconnected approach reduces the ability to coordinate between different stages of infrastructure delivery, leading to cost overruns and construction delays.
- Reduce cost and deliver projects on time: the private sector is more likely to face higher scrutiny from financiers, making them more likely to deliver the project on time. Moreover, given that the private sector is only paid once the project is delivered, either by government or by user fees, it has a greater incentive to deliver the service or infrastructure on time.
- Improve the incentives to maintain existing systems: if the PPP contract includes the operation of the infrastructure, the company in charge generally has a better incentive to maintain the infrastructure so that it can continue collecting revenue through end user fees.
- Increase the ability to collect user fees: the private sector may have more room to charge end-user fees compared to government. Given the lack of trust between fishermen and government, there may be a reluctance for fishermen to pay for access to infrastructure. Fees from private companies may be better accepted by the communities, depending on their relationship with the company.

- Solve the government's budget constraint: in the short term, PPPs can be used to solve the public sector's budget constraint. However, this only applies when private investors are assured that they will be able to recoup their investment, despite a budget-constrained government. This is generally the case when government's credit constraints are short term. This does not apply to the Yemeni government, whose revenue collection is severely impeded by the war in the medium to long term.

In the context of Yemen's fisheries sector, where infrastructure development and service delivery have been severely impacted by ongoing conflict and instability, PPPs can offer a valuable option. By leveraging both public and private sector resources and expertise, PPPs present a viable approach to addressing critical needs in a situation where solutions are currently limited or non-existent. Within the Yemeni policy context, the objectives of PPPs include **securing funding, infrastructure investment, service quality improvement, and resource efficiency**.

3.2 Typical PPP cycle

The cycle of a typical PPP project is generally comprised of the following phases:

- **Phase 1: Project identification and selection:** The public sector identifies a priority project suitable for a PPP arrangement.
- **Phase 2: Project feasibility analysis and preparation:** Detailed feasibility studies and business cases are developed to assess the viability of the project, considering technical aspects, demand levels, financial and revenue requirements, legal considerations, environmental and social impact, and other sustainability requirements.
- **Phase 3: Procurement, tendering, and selection of the private partner:** There are two main options for procuring PPPs: competitive tendering and unsolicited proposals. The government agency or authority issues a request for proposals (RFP) or a tender inviting private sector companies to bid for the project. Bidders submit proposals outlining their technical capabilities, financing plans, and proposed terms for delivering the project.
 - *Competitive tendering:* Under competitive tendering, the government and its advisors must clearly define the output performance requirements of the project and develop the full PPP contract. This requires time, expertise, and money to complete properly. This contract is then put out for competitive tendering, which may involve a two-stage short-listing process for complex or very large projects. Clear cost and non-cost criteria (including technical, environmental, and social factors) are established for evaluating bids and selecting the bid that offers the best Value for Money (VFM). This approach requires more time for governments and PPP Nodes (like the CC) to prepare and is more demanding in terms of clearly defining the project upfront, encompassing legal, technical, financial, and other aspects.
 - *Unsolicited proposals (USPs):* For smaller projects, or those one-of-a-kind projects, with only one suitable bidder, unsolicited proposals can be more

efficient. In this approach, a private firm submits its own technical concept proposal, based on what it deems will work best and completes both a full feasibility study and drafts the full PPP contract before submitting its bid. A key challenge is that the government needs to possess efficient technical expertise *to thoroughly evaluate the feasibility study, PPP contract, and the proposal* (which may introduce a brand-new idea, technology, or concept for the public sector). A key advantage of USPs is that they ensure a private bidder's strong commitment to investing in the project, allowing for the incorporation of innovative ideas into the best design and operating/business plan, potentially saving time, as compared to the requirements of full competitive tendering. However, for USPs to be sustainable and effective, *the government must rigorously evaluate, critique, and negotiate all aspects of the PPP project*, including legal, technical, financial, and environmental consideration. This ensures a comprehensive understanding of the scope and quality of the PPP project, along with any commitments or risks the government may share or assume, such as commitments to make payments for services delivered by the PPP.

The selection of the procurement technique for a given PPP project depends on the unique needs, risks, requirements, and stakeholders of each project. Some countries, when they are first launching a new PPP programme with challenging projects (due to size, financing needs, technology, etc.) sometimes favour USPs because they want to make sure they select a private partner with a strong commitment, including having enough equity to invest, and proven experience to undertake the project. They do so often to make sure this first PPP transaction is a clear “success,” and thereafter they can conduct competitive tendering more efficiently with more interested private bidders willing to compete to win the next PPP project, which is now viewed as a less risky investment.

- **Phase 4: Contract negotiation, commercial closure, and financial closure:** The government evaluates the proposals and selects a preferred bidder based on predefined criteria such as value for money, technical expertise, and financial capability. Negotiations are then conducted to finalise the terms of the contract, including project scope, financing arrangements, risk allocation, and performance targets.
- **Phase 5: Management/implementation:** Once the contract is signed, the private sector partner assumes responsibility for project implementation. The public sector retains important oversight and regulatory control to ensure compliance with contractual obligations and safeguard public interests. It is important to note that PPPs operate on an “*output-based contract*” model, meaning the private partner is paid according to the output services and products they deliver, rather than their capital or operational expenses. Therefore, the public sector needs to focus on monitoring and evaluating the Output Performance Levels of the private partner, rather than solely focusing on their reported input costs.
- **Phase 6: Operation and monitoring:** The project is operated and maintained by the private sector, typically under performance-based agreements. The public sector monitors performance based on predetermined, clear, measurable, and enforceable

performance standards. In instances of clear and significant non-compliance or underperformance, the public sector reserves the right to intervene, reduce payments, or even impose liquidated damages.

- **Phase 7: Transfer of assets:** At the end of the concession period, ownership of the assets may transfer back to the public sector, subject to preconditions. This is usually determined by factors such as asset depreciation and the completion of its expected operational life. For example, in the case of a fishing vessel with an expected lifespan of 20 years, at the end of the term, the residual asset – often having minimal value - may be retained by the private operator for salvage purposes. In contrast, for infrastructure like a Fish Landing Station, including its pier, facilities, and civil works, after 20 years, ownership may revert to the public sector. Nevertheless, significant investment for renewal, replacement, and upgrade/modernisation would likely be necessary. Alternatively, the contract may be renewed or extended based on mutual agreement between parties.

It is important to recognise the inherent complexity of sectors like fisheries, which involve numerous stakeholders across the value chain, from fish stock assessment to fishing production, landing stations, inspections, preservation, processing, transportation, trading transactions, and exports. This complexity differs from more straightforward PPP models, such as those seen in the more commonly implemented economic infrastructure PPPs, such as the Independent Power Producer (IPP) model. Most countries have some experience with IPPs, which involve a single long-term buyer of a single service produced by the project, and a straightforward Power Purchase Agreement (PPA) based on common international models.

A common mistake observed in countries applying PPPs to sectors like agrobusiness, fisheries (and livestock) is a narrow public focus solely on the construction of physical assets – such as landing stations, storage facilities, processing plants – without considering the broader business ecosystem needed for sustainable economic success of the project. Ensuring the success of the sector requires more than simply building or renovating physical facilities. It necessitates establishing a robust and viable business network of fishermen, traders, growers, buyers, sellers, marketers, and exporters. Thus, it is critical that these non-tangible aspects, such as this web of value-chain business relationships and support services, are carefully planned, discussed, and supported by all key players during the lifecycle of PPP projects.

Since PPPs entail thorough and intricate processes in their preparation, analysis, review, due diligence, contracting, procurement, and overall contract management, policy must advocate for the development of a comprehensive manual offering practical operational guidance. Such a manual should aim to assist project managers (either public sector or private) in delivering their responsibilities more efficiently.

The proposed summary, introduction, description, and recommended outline for these Fisheries PPP Operational Guidelines Manual is included in the Annex. This Manual could also be used as the primary textbook for training and capacity building delivered to Yemen's key sector stakeholders and staff.

3.3 Types of PPPs

PPP projects and their contract modalities can take many different forms with different degrees of investment and risk-bearing by the private partner, depending on the nature of the project and specific needs and objectives of the parties involved. Similarly, different PPP modalities will require different levels of contributions, limited guarantees, and risk-sharing by the public sector. At the lower end of the spectrum (such as for a shorter term “Operating Contract” (e.g., just 5-10 years), the government remains responsible for financing the infrastructure but leaves the operation of the facility and its maintenance to the private sector. At the higher end, such as concessions contracts, the construction, operation, and maintenance are left to the private sector who bears the entirety of the risks. In exchange, the private sector collects fees from end-users directly.

Potential PPP models to address the sector’s main bottlenecks are described below.²

- **Service contracts and PPPs for maintaining fishing boat engines and refrigeration equipment:** Under a service contract, the public authority hires a private entity to perform specific tasks or services for a predetermined period, usually one to three years. The public authority retains ownership of the infrastructure and only outsources certain operations to the private sector. The private partner must deliver the service at an agreed cost and must typically meet performance standards set by the public sector.³ Opportunities where this could be applied include for specific functions like fishing equipment maintenance, such as for fishing vessel motors. This could also be applied to refrigeration equipment maintenance, which often breaks down in public enterprises due to a lack of maintenance, spare parts, and clear incentives or accountability for regularly scheduled maintenance according to original equipment manufacturers (OEM) clear maintenance standards.
- **Management or operating contracts for managing FLS:** Management or operating contracts expand the services to be contracted out to include some or all the management and operation of the public service. The private sector typically receives a fee for its service, contingent upon meeting Key Performance Indicators (KPI) stipulated in the contract. Although the ultimate obligation of service provision remains with the public sector (i.e., the private sector does not assume ownership or financing responsibilities), daily management control and authority are granted to the private entity. The contracts are generally short-term, spanning 3 to 8 years.
 - For example, management contracts could be implemented to ensure the proper operation and maintenance of a donor-financed and constructed **fish landing station**, such as for five years. This includes the maintenance of all equipment, routine operations, security, and cleaning duties. Facilities that are used for commercial benefits are well suited to these types of contracts. Since the operator’s revenue is tied to the commercial success of the facility, they

²https://ppp.worldbank.org/public-private-partnership/sites/ppp.worldbank.org/files/2022-05/WPS5173_0.pdf

³<https://www.adb.org/sites/default/files/institutional-document/31484/public-private-partnership.pdf>

have an incentive to improve its operational efficiency and expand its market reach to a wider range of local and international buyers.

- **Lease or affermage of a port terminal or fish processing factory:** Under a lease, an existing facility or asset built and financed by the government may need limited renovation investments, and to be managed commercially, attracting new customers, generating more revenue, and contributing to the growth and expansion of the sector. These state-owned assets or facility are leased to a private company, which pays rent or a lease fee to the government in exchange for being able to operate and manage the facility commercially. The private company is in charge of attracting new customers, increasing revenues and volumes, but is allowed to keep any net profits it earns. Lease PPP contracts typically last between 5 and 15 years. Most leases include commitments by the government, as the owner, to provide new long-term financing (or grants from donors) to expand the existing facility as needs increase.
 - As an example, a lease PPP contract could be applied to existing fish processing factories that the public sector owns. Most public facilities are under-maintained, and are not managed commercially (i.e., lacks incentives to attract new customers, operate more efficiently, enhance quality of services offered, and earn net profits). The government could lease the existing fish processing factory to a private operator who finances the replacement of old equipment with new assets and who implements a commercial marketing strategy to serve more customers, to operate more efficiently, and to market more of their products to the export market. Additionally, the private operator usually wants to see the size of its market grow and may require that the Government (through donors) commit to providing the long-term funding needed to expand the physically size of the factory and its geographic footprint, allowing the private operator to achieving higher volumes, and greater profitability from a growing business.
- **Build-Operate-Transfer, Build-Own-Transfer, or similar arrangements:** A private entity is responsible for financing, building, or refurbishing a facility. It is then operated by the private company for a specific period. Ownership is then transferred to the government at the end of the contract. Depending on the results of the feasibility study, such contracts may involve the payment of a recurrent license fee to the government or a fixed percentage of gross revenues (if deemed feasible by the project's cost structure). In cases where the residual assets hold no book value at the end of the contract's conclusion (e.g., a 20-year-old vessel or 10-year-old IT data management hardware system), responsibility for the remaining assets can simply be transferred to the private partner for disposal.
 - An example of a BOT could include a PPP for the design and management of a new fish stock database IT system for the MoAIF. If the MoAIF as well as fishing companies and fish cooperatives need access to accurate data on Yemen's fish stocks, MoAIF could choose to meet this need through a BOT or BOO contract. A private firm would be responsible for designing, financing, equipping, installing, and operating a new, easy-to-access database system. In exchange, the private partners would be paid a regular monthly PPP

performance fee for properly operating and maintaining such a system, according to clear technical performance standards. Such PPPs ensure that private partners do not just provide a needed technology, but also are responsible for operating and managing the database to ensure it reliably delivers the needed services to the MoAIF or to other end-users.

- **Concession and PPPs for a new cold chain storage network:** The private entity is responsible for the construction, long-term financing, operation, and management of the infrastructure network and service delivery for a specified period. The private concessionaire charges fees to end-users directly. The government ensures the quality of the service delivered. Such contracts typically last 20 years, generally matching the life of the asset. In long-term contracts, if profitability is achieved, PPP contracts often include provisions for revenue-sharing with the government. Additionally, concessions for long-term assets such as ports and transport facilities, expected to remain operational beyond the concession term, are typically designated as government-owned. The private concessionaire is granted temporary (usually 20 years) rights and legal obligations to expand, operate, and fully maintain the government's asset.
 - Concessions are often employed in sectors that are natural monopolies. In Yemen's fisheries sector, as noted above, concession PPPs could be used to establish a new network for Cold Chain Storage of seafood products, such as those for export. The cost of building a whole network of facilities, vehicles, warehouses, and inspection and verification systems can be quite high. In smaller, emerging markets, there may only be enough demand in the market for a single cold chain storage network for seafood, perishable fruits and vegetables, pharmaceuticals, vaccines, etc. To reduce the risks facing a new private investor, the MoAIF may grant a concession to the private developer, giving them exclusive rights to offer cold chain storage services for a temporary period of 10 years, after which new private competitors can be allowed. This can help give private investors and their lenders the confidence that the demand for seafood products and exports is high enough to be able to recover all their operating costs as well as their capital costs, including a reasonable rate of return on their investment.

PPPs can be structured in different forms. There is no one-size-fits-all solution and projects in the fisheries sector need to be assessed on a case-by-case basis. The MoAIF should decide which form a specific PPP should take after reviewing the needs of the project and the relative capacity of both the public and the private sector in assuming the financial and managerial responsibilities for that specific project. Measurable outcomes are essential for evaluating private sector performance. Governments need robust metrics to assess service quality, efficiency, and financial viability throughout the contract period, ensuring accountability and delivering value for public investments.

As mentioned above, PPPs in the fisheries sector can help strengthen Yemen's infrastructure development projects, enhance value chains, increase food security, and support more sustainable practices in the fisheries industry. These partnerships have the potential to attract private sector investment, complementing government efforts to address issues such as

overfishing, inadequate infrastructure, and market access constraints. More specifically, PPPs in the fisheries sector could include the following⁴:

1. **Improving access to national and international markets:** A key constraint facing Yemen's fisheries sector is its limited ability to export its fish products. This is due to low levels of productions and a difficulty in meeting the detailed export regulatory requirements of large foreign markets, such as the EU's specific import quality standards. Governments may work with private sector stakeholders to promote the export of fisheries products and access to international markets. This often requires enhancing supply chain mechanisms, developing effective marketing strategies, and assisting with competitor analysis, export regulations, managing customs procedures, and logistical infrastructure. PPPs are often effective in addressing these needs, facilitating the export of fisheries products and entry into global markets. This also supports the transportation, storage, and distribution of fisheries products, thereby enhancing market access for small-scale enterprises.
2. **Improving sector-specific infrastructure services:** Infrastructure improvements in the fisheries sector are crucial, particularly in three key areas: (i) the distribution of quality seed stock of fish, (ii) fish production and supply, and (iii) the transportation of fish products. To achieve this, Infrastructure Development Projects managed by the Private Sector on a PPP basis can target the following areas:
 - Fish Landing Stations
 - Fishing Vessels
 - Maritime Ports and Supporting Facilities
 - Fish Inspection Facilities, Equipment, and Staff
 - Fisheries Sector Waste Management
 - Fish Canning, Processing, Preservation and Packaging Facilities
 - Cold Chain Storage Networks
 - Logistics management facilities, systems, and marketing initiatives for increasing exports
 - Warehouses, housing, markets, etc.
 - Other relevant ancillary economic infrastructure sectors and projects.

While this list of needed sector investments is long, the top three priority areas according to key stakeholders consulted would include: (i) Improved fishing vessels (and skills and capacity) to be able to access deep-sea fish stocks; (ii) Improving export marketing, regulation, promotion, and logistics management systems and projects; and (iii) Improved Fish Landing Stations integrated efficiently with other value-chain links including inspection facilities, transport to processing facilities and cold chain storage networks. PPPs can facilitate investments in these areas to address infrastructure gaps and enhance sectoral performance.

3. **Improving fish safety and quality:** Small-scale fishermen aiming to export their products often face challenges in meeting fish safety and quality requirements which

⁴https://digitalarchive.worldfishcenter.org/bitstream/handle/20.500.12348/1557/WF_1068.pdf?sequence=1&isAllowed=y

can hinder their access into international markets. Through service contracts facilitated by the government, PPPs can help these fishermen and aquaculture managers to meet the necessary production standards, obtain operational certifications, and ensure compliance with auditing or traceability requirements. These aspects can be easily managed by the private sector, with government partners providing oversight and regulation.

4. **PPP capacity building and practical sector vocational training:** PPPs could focus on building the capacity of fisheries communities through training programmes, vocational education, and skills development initiatives. The government could collaborate with private sector partners to design and deliver training modules on sustainable fishing practices, aquaculture management, seafood processing, and effective commercial management and entrepreneurship. Private companies could provide technical assistance and job placement opportunities for trainees. Donor funding to support some of the costs may likely be required.
5. **Improving access to finance for PPPs:** Access to credit remains a significant challenge for small-scale private enterprises, including those in the fisheries sector. Collaborations between governments, local/regional financial institutions, and private sector entities can address this issue by providing microcredit and other financial products tailored to the needs of fishers and farmers. For example, the CC could evaluate if a partial credit guarantee could help more of the sector's key commercial stakeholders gain access to needed, affordable financing to both preserve their assets and expand their operations.
6. **Technology development and research:** PPPs supporting technology development and research could contribute to advancements in infrastructure-related areas such as Cold Chain Storage, Equipment, and Information Systems. These projects could involve collaborations between research institutions, technology providers, and private sector investors to drive innovation and improve efficiency in infrastructure management.

Overall, a PPP in the fisheries sector would aim to harness the strengths of both the public and private sectors to promote sustainable resource management, economic development, and social welfare in fishing communities. By combining resources, expertise, and incentives, such partnerships have the potential to drive innovation, investment, and growth in the fisheries industry while fostering economic growth and development.

TABLE 1: Summary of key features of basic PPP forms

Feature	Service Contract	Management Contract	Lease (Affermage)	Concession	BOT (Build–Operate–Transfer)
Scope	Specific support services (e.g., billing, metering)	Manages entire operation or a major component	Full operations incl. minor renewals	Full operations + financing and execution of investments	Operates a specific major component (e.g., treatment plant)
Asset Ownership	Public	Public	Public	Public or Private	Public or Private
Duration	1–2 years	2–5 years	10–15 years	25–30 years	Varies
O&M Responsibility	Public	Private	Private	Private	Private
Capital Investment	Public	Public	Shared	Private	Private
Commercial Risk	Minimal	Minimal to Moderate	Moderate	High	High
Private Sector Risk Level	Very Low	Low	Moderate	High	High
Compensation Terms	Unit prices	Fixed fee (ideally with performance incentives)	Portion of tariff revenues	All or part of tariff revenues	Mostly fixed, some variable (linked to output)
Special Features / Challenges	Needs strong contract enforcement; fosters local firms	Good for transition; limited control over resources	Can strain public-private roles on investments	Mobilises finance; risk of weak maintenance enforcement	May require guarantees; doesn't always improve operations

Source: Asian Development Bank. (2008). *Public-Private Partnership Handbook*. Manila: Asian Development Bank. Available at: <https://www.adb.org/documents/public-private-partnership-ppp-handbook>

3.4 Pre-requisites to successful fisheries sector PPPs

Although PPPs offer numerous potential benefits, they can also pose challenges for governments if they are not managed properly. PPPs face the following risks:

- **Cost minimisation over welfare:** Decisions made by the private sector generally put profits over welfare maximisation. This can cause a problem when the government's goal to improve quality, user welfare, or sustainability. This is especially the case when these goals cannot be easily written into a contract and monitored by the contracting authority. Special care needs to be adopted when designing PPPs that affect

vulnerable communities such as fishermen. The government needs to ensure that critical infrastructure, such as FLS, remains accessible even to low-income fishermen.

- **Higher cost, or a 'private premium':** PPPs can be more expensive than the public delivery of services. This is often the case because private companies generally finance themselves at a higher cost than public debt. Additionally, since private companies are more risk averse than government, they may need higher compensations to take on the risk involved in the PPP contract. Given the high need for additional investment in the sector and the reluctance of the private sector to invest, there may be a willingness for government to offer a lot of incentives for private sector investments. If not carefully thought out, these incentives may end up costing the government much more in the long run than if the investment had been born by the public sector.
- **High complexity of contracts:** PPPs are complex contracts that require time and a high degree of public capacity to design, negotiate, and monitor the performance of the private company. If this is not properly done, there is a risk of costly legal action between private and public actors over disagreements on contract compliance. This is a particular concern in Yemen, with the MoAIF's capacity reduced by the war. A lot of technical and financial assistance over sustained periods of time will be required to ensure the proper design and monitoring of PPPs.

To ensure that these risks are mitigated, the ministry needs to ensure that the PPP is appropriately designed. The building blocks to a successful PPP include the following:

- **Coordination:** PPP projects require coordination between several actors, including the private sector and various ministries or public sector entities active in the fisheries sector. This multiplicity of stakeholders can make it difficult to coordinate efficiently between the different parties involved, complicating the setup and management of projects. The establishment of a dedicated coordination mechanism, such as a **Coordinating Council**, is necessary to streamline coordination and communication across these different stakeholders.
- **Regulation:** Clear and appropriate regulations are essential for guiding the conduct of PPPs and ensuring compliance with legal requirements. Regulatory frameworks should be designed to promote transparency, fairness, and accountability, while also fostering innovation and investment in sustainable fisheries practices. In Yemen, where regulations, laws, and governance face unique challenges, most stakeholders agree that the sector would greatly benefit from an official review (in Arabic), reform, and rationalisation of its fisheries laws as soon as the political and security context allows for this.
- **Shared vision:** Establishing a shared vision among all partners is crucial for aligning interests, fostering collaboration, and driving the success of PPP projects in the fisheries sector. This shared vision should reflect the collective goals, priorities, and aspirations of the public and private sectors, as well as other stakeholders involved in the partnership.

- **Transparency:** Transparency is essential for building trust and confidence among partners and stakeholders. All aspects of the partnership, including its objectives, governance structure, decision-making processes, and financial arrangements, should be transparent and clearly communicated to all parties involved.
- **Trust, cooperation, and open communication:** Trust, cooperation, and open communication are foundational elements of successful PPPs. Partners must cultivate a culture of mutual respect, trust, and cooperation, recognising that collaboration and shared responsibility are key to achieving common goals and delivering positive outcomes for all stakeholders.
- **Political support:** Strong political support at both the national and local levels is essential for the success of PPP projects, especially when moving large and complex infrastructural projects forward. Political leaders must demonstrate commitment to the partnership, provide necessary resources and support, and address any challenges or obstacles that may arise during the implementation process.
- **Skills and capacity:** The need to ensure adequate skills and capacity for each partner to fulfil its delegated responsibilities.

It is crucial to recognise that there is no one-size-fits-all approach to creating an effective institutional framework for Public-Private Partnerships (PPPs) in the fisheries sector. The overall business, commercial, and fisheries environment in Yemen has been hampered by a lack of clear coordination and leadership among key stakeholders, particularly within the public sector. This lack of clarity has led to significant confusion and uncertainty about institutional relationships and how to address practical issues related to PPP project identification.

To address these challenges, a new ministerial PPP decree is needed to tackle the core institutional and policy constraints. By establishing a clear framework, this decree can provide much-needed guidance on stakeholder roles and responsibilities, facilitating better collaboration between public and private entities. The main constraints to adopting PPPs in Yemen are outlined below.

3.5 Key constraints to adoption of PPPs in Yemen

There are numerous factors constraining the adoption of PPPs in Yemen including the absence of clear regulations, insufficient financial resources, inadequate skills, and poor coordination mechanisms. A significant barrier to implementing PPPs in Yemen is **lack of financial and human resources** within line ministries like MoAIF to identify, analyse, and prepare candidate PPP and concession projects. Interviews with MoAIF leaders reveal a deficiency in experience and capacity among current staff to navigate PPP frameworks, identify viable projects, and manage them through preparation and execution.

Central to overcoming these constraints is the establishment of two mutually reinforcing elements: an institutional structure (such as a Consultative Council, see below), which can enable effective collaboration between public and private sectors and the means of generating a robust pipeline of PPP projects tailored to the unique needs and opportunities within Yemen's fisheries sector. This requires the **development of skills** to discern which projects

hold promise and the expertise to effectively manage them throughout their lifecycle. Equally important is the need for a **conducive regulatory environment tailored to PPPs**. While specific projects can proceed without dedicated PPP laws, the expansion of PPP initiatives requires a comprehensive legal and institutional framework to streamline processes, ensure alignment with national investment strategies, and establish clear institutional responsibilities. Such regulations also serve to promote transparency in project selection and delineate protocols for managing project-specific risks.⁵

Moreover, the effective implementation of PPPs requires a thorough assessment of the current regulatory landscape governing PPPs in Yemen. Understanding existing constraints and opportunities is essential. Moreover, addressing systemic barriers to coordination, particularly within relevant authorities such as fishing agencies, is imperative. Additionally, **inadequate coordination mechanisms** hinder effective engagement with potential PPP partners and the efficient management of PPP projects.

Although specific pilot PPP projects can be implemented in Yemen without country-specific PPP laws, scaling up PPPs necessitates a legal and institutional framework to guide and regulate the process as well as strengthened coordination and capacity development to enhance human and financial resources. Only through concerted efforts to address these constraints can Yemen unlock the transformative potential of PPPs in its fisheries sector.

To summarise, to address these constraints effectively, the following steps are needed:

1. **Establishing a robust institutional framework:** Bringing together both public and private sector actors.
2. **Building up an initial sustainable pipeline of PPP projects:** Developing a pipeline of projects tailored to the fisheries sector's needs and opportunities.
3. **Skills and capacity development:** Enhancing skills to identify viable projects and effectively manage them throughout their lifecycle.
4. **Regulatory framework rationalisation:** A thorough examination of existing regulations to understand their limitations and opportunities for improvement. Based on this assessment, establish a comprehensive legal and institutional framework to streamline processes, ensure alignment with national investment strategies, and promote transparency in project selection and risk management.
5. **Effective coordination mechanisms:** Establishing robust coordination mechanisms and enhancing the capacity of relevant authorities to actively participate in PPP processes, addressing systemic barriers to coordination.

4. Fisheries Consultative Council for PPPs

A key finding from the bilateral interviews and consultation workshops conducted for this report is the need for a high-level institutional body to serve as the central point for communication and coordination in fisheries initiatives under PPPs. Establishing a Fisheries Consultative

⁵ <https://ppp.worldbank.org/public-private-partnership/sites/ppp.worldbank.org/files/2022-07/P17521204fa5900710ba160e9613aa44291.pdf>

Council (CC) for PPPs is currently the most viable option, considering the constraints on enacting new laws. It is proposed that the MoAIF create this council through a ministerial decree.

The following section outlines the objectives of the Fisheries CC, detailing its roles and responsibilities. It also includes considerations for defining the CC's legal and governance structure, a proposed organisational chart with potential for future expansion, strategies for funding and budget considerations, planning requirements, best practices, and a proposed immediate-term work plan.

4.1. Objective, roles and responsibilities

The primary goal of establishing the Fisheries Consultative Council (CC) is to advance fisheries Public-Private Partnerships (PPPs) in Yemen by offering expertise, resources, and support to stakeholders involved in these projects. The CC will provide high-level public-private inputs and oversight, acting as the strategic body responsible for key decisions related to sector policy, planning, and strategy.

However, given that CC members may lack the time or specialised skills required to conduct detailed analyses of PPP projects, perform feasibility studies, draft contracts, or manage tenders and procurements, the CC will be supported by a dedicated **Secretariat of professionals**. This Secretariat will handle the detailed operational aspects, ensuring that the CC's strategic guidance translates into successful implementation of fisheries PPPs.

The CC will contribute to the success of fisheries PPPs through the following activities:

- **Knowledge and expertise sharing:** The fisheries CC can serve as a hub of knowledge, expertise, and best practices related to PPPs. It can conduct research, gather case studies, and develop guidelines that provide insights into successful PPP models, project structuring, risk assessment, legal and regulatory frameworks in the fisheries sector.
- **Capacity building:** The fisheries CC can organise training programmes, workshops, and seminars for fisheries officials, private sector representatives, and other stakeholders. These capacity building initiatives can enhance understanding of PPP concepts, project management, negotiation skills, and effective collaboration as they relate to the fisheries sector.
- **Facilitating partnerships:** The CC can serve as a platform for matchmaking between fisheries and private sector entities. It can help identify suitable private partners for specific projects, fostering better alignment between the public and private sectors' goals and capabilities.
- **Policy advocacy and reform:** The CC can collaborate with relevant government agencies to advocate for policy reforms and regulatory improvements that encourage PPPs at the fisheries level. By highlighting success stories and addressing challenges, the CC can contribute to a more conducive policy environment.

- **Networking and collaboration:** The CC can facilitate networking opportunities for fisheries officials, private sector representatives, investors, lenders, and other stakeholders. This promotes knowledge exchange, partnership building, and the sharing of lessons learned.
- **Awareness and outreach:** The CC can conduct awareness campaigns and public outreach initiatives to educate citizens about the benefits of PPPs and the value they bring to fisheries infrastructure and services.

4.2. Institutional structure

The legal status and official governance structure of a fisheries CC is a crucial element needed to ensure its effectiveness, sustainability, and ability to achieve its objectives. It should be carefully designed to balance the interests of all stakeholders and create a conducive environment for fostering successful PPPs. Below are some key considerations for the legal status and official governance structure of a fisheries CC:

- **Legal status:** The CC can be established as a legal entity, typically either as an advisory body under the MoAIF, or a hybrid entity with both public and private participation. The choice of legal status will influence factors such as governance, autonomy, funding mechanisms available, liability, and decision-making processes. Considering the institutional advantages and disadvantages as well as the legal considerations among the various locations, it is recommended the CC be established as an advisory body within the MoAIF.
- **Governance:** The governance structure defines how decisions are made within the CC. As a department within the MoAIF, the CC will be subject to complying with the requirements of the PPP ministerial decree as well as any of its other bylaws or other operating rules and regulations. For example, all fisheries PPPs that the CC supports and advises must be prepared to meet all government legal requirements for the analysis, review, approval, and monitoring of any potential contingent liabilities the given PPP transaction may include (for example, committing to lease a fish land station or related equipment or facility to a private investor(s)/ operator(s) for specific contract term).
- **Funding mechanisms:** The funding of a CC can come from a combination of sources, including coordinated contributions from bilateral and multilateral donors, government grants, private sector partners, international organisations, and possibly even from user fees for services provided to specific parties. The legal structure should outline how funds are collected, managed, and allocated to support the CC's activities. Section 4.4 provides more details.
- **Liability and legal protections:** The legal structure should define the extent of liability for the CC and its staff. Depending on the chosen legal status, the CC may benefit from legal protections or immunities, or it may be subject to liability for its actions and decisions.
- **Functions and activities:** The legal structure should clearly outline the duties, authority, functions, activities, and services that the CC will provide to the fisheries sector. This may include capacity building, technical assistance, project preparation support, policy

development, research, knowledge dissemination, training, project assessment, and best practice sharing.

- **Conflict of interest and ethics:** To ensure transparency and accountability, the legal structure should include provisions addressing conflict of interest and ethical considerations for the CC's staff and governing body members.
- **Reporting and accountability:** The CC should have reporting and accountability mechanisms in place to communicate its activities, achievements, and financial performance to its stakeholders. This may include regular reporting to government entities, donors, and the public.
- **Legal jurisdiction and applicable laws:** The legal structure should specify the jurisdiction under which the CC operates and any specific bylaws that govern its activities. This is particularly important in that the CC will be constituted at the national level.

4.3. Management of the CC's Secretariat of PPP specialists

In launching the CC, the IRG and key donors engaged in restoring the fisheries sector should build the organisation and staff it incrementally. The actual number of individuals required in the medium and long-term will depend on the evolution of the fisheries PPP concept and programme and the PPP project pipeline.

The role of the (technical) Secretariat is to:

- **Project development support:** The Secretariat can assist the CC and the MoAIF in identifying potential PPP projects, conducting feasibility studies, and preparing project documentation. It can provide technical assistance in project scoping, financial modelling, and risk assessment, which are crucial steps in the project development process.
- **Risk mitigation strategies:** PPP projects often involve complex risk-sharing arrangements. The Secretariat can assist the CC and the MoAIF in identifying and mitigating potential risks through the development of risk assessment frameworks, risk allocation strategies, and risk management plans.
- **Monitoring and evaluation:** The Secretariat can establish mechanisms for monitoring and evaluating the performance of fisheries PPP projects over time. This can help identify areas of improvement and ensure that projects deliver the expected benefits to both the public and private partners.
- **Build capacity of the ministry:** Conduct PPP trainings within the CC and the line ministry to help build PPP-specific sector capacity. This will enable the CC to better assess the different projects proposed.

Given the significant technical expertise required to conduct feasibility studies, manage contracts, and oversee PPP projects, the CC will benefit from the support of a dedicated technical Secretariat. It is recommended that the Executive Bureau for the Acceleration of Aid

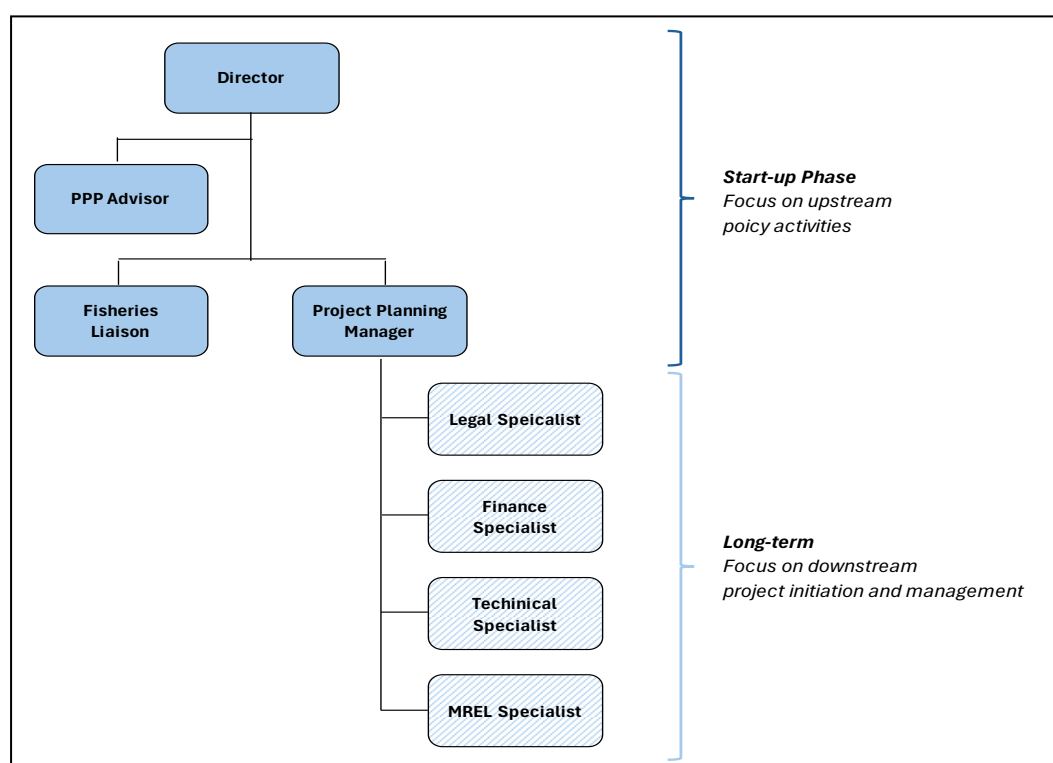
Absorption (EB) plays a pivotal role in establishing this Secretariat, leveraging its experience in providing technical assistance to various ministries and agencies of the Government of Yemen. This collaboration positions the EB to effectively facilitate the necessary support and coordination for the CC's initiatives.

Several factors make the EB an ideal candidate to lead the process of establishing the CC's Secretariat:

1. **Technical expertise:** The EB already has a skilled technical team experienced in managing projects, with the capability to add specialised staff as needed.
2. **Strong relationships:** It has established excellent relationships with both the public sector and international donors.

Initially, the IRG could establish a small, lean inter-disciplinary professional secretariat responsible for advising and supporting the MoAIF while it establishes the Secretariat. This task force should be supplemented with on-call subject matter expert advisors, e.g., PPP, legal, financial, engineering. It would also be wise to explore leveraging the expertise of other potential donors and stakeholders in examining fisheries PPPs. In the early stages, the Secretariat will need to increase the understanding of PPPs among fisheries officials as well as identify pre-requisites and opportunities to implement PPP projects. As such, it is recommended that the Secretariat be organised as described below in Figure 1.

FIGURE 1: Fisheries Secretariat organisational chart



- **Director:** This individual will lead the Secretariat. In addition to having familiarity with PPP concepts and terminology, they must have the confidence of the various internal

stakeholders, understand the policy concerns of the government, and appreciate the financial imperative of potential investors.

- **PPP Advisor:** This specialist consultant must possess knowledge of international best practices for fisheries and sub-national entities and will act as a sounding board for the Director and be available to assist in carrying out Secretariat tasks. In many similar programmes it is common for bilateral and multilateral donors to furnish one (or even two to three) experienced fisheries infrastructure PPP specialists, especially in the early phases, with technical, financial, legal, or transaction advisory backgrounds.
- **Fisheries Liaison:** This person will be responsible for reaching out to fisheries, making them aware of the Secretariat and the assistance it offers. Importantly, they will coordinate PPP capacity building efforts at the fisheries level.
- **Project Planning Manager:** This individual will conduct the initial identification and screening of fisheries PPP projects. This person will work with the Director and fisheries in identifying potential PPP projects, assessing projects to determine whether additional resources should be committed to the project and presenting the identified project, internally to senior management and the relevant operating affiliate entity(ies).

Following the start-up phase of the Secretariat, additional staff may be added as the organisation transitions from upstream policy activities to downstream project initiation and management.

- **PPP Legal Specialist:** This person advises on all legal related issues and prepares drafts of legal and contractual issues/ documents linked with specific PPP projects. Legal focus will be on procurement, contracts, regulation, and general business law. This person will coordinate outside legal counsel and will also be responsible for recommending standard contracting provisions and drafting and reviewing of project agreements and compliance with regulatory requirements.
- **PPP Finance Specialist:** This individual will be responsible for assessing commercial viability, bankability, and affordability of fisheries projects, and will coordinate work of outside financial advisors. The PPP Finance Specialist is expected to provide expert input into all PPP projects on the financial structuring and explicit and implicit financial costs to government. Such a professional will have solid commercial/corporate finance experience on a number of projects in a number of sectors from a private sector financing perspective as well as experience in understanding the project risks to both public and private sector participants, ideally with experience in project financing and PPP.
- **PPP Technical Specialist:** This person advises on fisheries-sector specific engineering/ technical issues related to determining the technical viability of a fisheries project.
- **PPP Monitoring and Evaluation, Research and Learning (MERL) Specialist:** This person will work with the fisheries in managing, monitoring for compliance and, if necessary, enforcement of contracts.

Other specialised expertise that will be required throughout the fisheries PPP process may include local economic impact economists and specialists, environmental and social impact specialists, employment and man-power specialists, and industry specialists. These experts may be needed at any phase of the PPP process. These experts will be needed on a just-in-time basis. It is recommended that the fisheries Secretariat pre-qualify a pool of consultants that can be accessed when needed.

This organisational structure will be evaluated and adjusted, where needed, as the role of PPPs within the fisheries CC is better defined and the deal flow increases. In the end, the fisheries Secretariat will need the following capacities:

- Strong understanding and familiarity with PPPs and project financing.
- Strong general project management and institutional coordination skills.
- Technical skills (that is, have the ability to technically understand the project).
- Strong understanding of the value chain requirements of the fisheries economy and ability to support business relationships with the private sector.
- Strong banking and finance skills (that is, good understanding of financial structuring techniques and financial modelling skills).
- Strong Yemeni and international legal skills (such as draft contract preparation, contract negotiation, etc.).
- Good economic skills.
- Strong risks management skills.
- Good tendering management capabilities.
- Strong procurement and service contract management capabilities (specifically for the hiring and management of consultants).
- Strong capacity in developing and managing a robust PPP capacity building programme for the fisheries CC affiliates, as well as other stakeholders.
- Strong communication skills.
- Strong knowledge management skills.

The annex provides more details on the proposed role and responsibilities of the different fisheries Secretariat staff members.

4.4. Financing

Budgeting for the fisheries CC involves planning and allocating financial resources to effectively manage and oversee PPP projects. Factors to consider when budgeting for the fisheries CC include:

- **Understand the fisheries CC's mandate:** In the case of fisheries PPPs in Yemen, it is necessary to define how the CC will interface with other stakeholders, including other relevant public sector entities, fishermen, cooperatives, private investors and operators, other regulatory bodies, as well as international donors and development partners.
- **Identify funding sources:** Determine the sources of funding for the CC's operations. This could come from the Government budget, donor funding, or other revenue sources, e.g., fees. A dedicated budget line should be created for the CC.

- **Personnel costs:** Allocate funds for staff salaries, benefits, training, and recruitment. Experienced professionals in areas such as project management, legal, financial analysis, and engineering are essential for successful PPP management.
- **Administrative expenses:** Budget for office space, utilities, office supplies, communication tools, and other administrative needs.
- **Technical expertise:** Allocate funds for hiring consultants or experts in the legal, financial, technical, and environmental aspects of PPP projects. They can provide specialised knowledge during project evaluation, negotiation, and contract management.
- **Feasibility studies and due diligence:** Set aside funds for conducting feasibility studies, market research, risk assessments, and due diligence on potential PPP projects. This step is crucial for identifying viable projects and estimating potential returns.
- **Procurement process:** Budget for expenses related to the procurement process, such as request for proposal (RFP) development, evaluation of bids, and negotiation with private sector partners.
- **Legal and contractual services:** Allocate funds for legal advice, drafting contracts, and ensuring compliance with relevant laws and regulations. Legal experts play a vital role in structuring agreements that protect the interests of both public and private parties.
- **Monitoring and evaluation:** Budget for ongoing monitoring, reporting, and evaluation of fisheries PPP projects to ensure they are meeting their objectives and staying on track financially. This will likely be the responsibility of the fisheries; however, they will need capacity building in this area.
- **Capacity building:** It will be necessary to allocate funds for training and capacity-building programmes for fisheries CC staff to enhance their skills and keep them updated with best practices.
- **Contingency funds:** Include a contingency budget to address unexpected challenges, changes in project scope, or unforeseen expenses that may arise during the project lifecycle.
- **Public communication and stakeholder engagement:** Budget for communication efforts to keep the public and stakeholders informed about the progress of fisheries PPP projects. Transparent communication helps build trust and manage expectations.
- **Technology and software:** Allocate funds for necessary software tools and technology platforms that streamline project management, financial analysis, and reporting.

- **Performance incentives:** Consider including performance-based incentives for fisheries CC staff to motivate them to achieve successful outcomes and ensure efficient project management.
- **Reporting and auditing:** Budget for regular financial audits and performance reporting to maintain transparency and accountability in the unit's operations; and
- **Review and adjustment:** Periodically review the budget and adjust based on the CC's actual performance, changing priorities, and evolving project landscape.

Effective budgeting for the fisheries CC is essential for ensuring its smooth functioning and the successful execution of PPP projects that deliver value to both the public and private sectors. Funding the fisheries CC involves securing financial resources to support its operations and activities. The goal is to establish a sustainable funding model that enables the CC to effectively manage and oversee fisheries PPP projects. Potential funding strategies include:

- **Government budget allocation:** While a common source of funding for a CC is the government's budget, this may be challenging in the context of Yemen. However, the MoAIF could allocate funds to support the operations and staffing of the fisheries CC to the extent possible given its mandate. This can be done through annual budget allocations or as part of a multi-year plan.
- **Donor funding:** International organisations, development banks, and foreign governments often provide grants or loans to support capacity-building initiatives and infrastructure development. The fisheries CC can seek funding from these sources to enhance its capabilities. Additionally, the CC should also carefully look at the different funds established that provide financial products to countries suffering the impacts of climate change.⁶
- **Project development fund:** Establish a dedicated fund that pools resources from various sources, including the government budget, development banks, and private investors. This fund can be used to finance feasibility studies, due diligence, and early-stage project development of fisheries PPP.
- **Matching grants:** The fisheries CC can collaborate with international development organisations that offer matching grants (such as blended finance) where they provide

⁶ For example, the UN's main climate change funding coordinating body, the Green Climate Fund (GCF) has a total capital pledged of \$100 billion, has invested over \$10 billion as grants and loan guarantees to climate mitigation projects, and is preparing \$590 billion in new projects for both emissions reductions and for climate change mitigation. Some of Yemen's sector projects may be able to qualify for these growing resources. For instance, GCF is funding The Gambia's small artisanal fisheries sector with \$25 million in grants and co-funding to support vulnerable and poor fishing communities in building resilience to climate change and in diversifying livelihoods through technology improvements, processing techniques, climate-proofing of the local fishery infrastructure, and diversification of local food systems (See: <https://www.greenclimate.fund/project/fp188>)

funds based on the amount the fisheries or the CC invests. This can incentivise IRG to allocate more resources to the CC.

It is important to tailor the funding strategy to the specific context, legal framework, and financial needs of the fisheries CC. A combination of these funding sources and strategies can help establish a financially stable fisheries CC that effectively supports the implementation of fisheries PPP projects.

4.5. Establishment and best practices

Establishing an effective fisheries CC requires careful planning to create a resource hub that supports the development, implementation, and management of successful fisheries PPP projects. An implementation plan outline for a PPP CC should include:

Needs assessment and planning:

- *Identify objectives:* Define the fisheries CC's primary objectives, such as knowledge sharing, capacity building, best practice dissemination, and supporting PPP initiatives.
- *Stakeholder engagement:* Engage with relevant government agencies, private sector entities, academic institutions, and international organisations to gather input and assess needs.
- *Scope definition:* Determine the scope of services the fisheries CC will offer, such as research, training, advisory services, and networking.

Organisational structure and resources:

- *Structure design:* Establish the organisational structure of the fisheries CC, including leadership roles, teams responsible for different functions, and reporting lines.
- *Resource allocation:* Determine the budget, staffing needs, and physical infrastructure required to support the fisheries CC's activities.

Capacity building and expertise:

- *Skills assessment:* Identify the skill sets required for the fisheries CC team, including subject matter experts in PPPs, legal advisors, economists, project managers, and communication specialists.
- *Recruitment and training:* Recruit professionals with expertise in PPPs and related fields. Provide training programmes to enhance their knowledge of PPP concepts, research methodologies, and project management.

Knowledge generation and management:

- *Research agenda:* Develop a research agenda focusing on fisheries sector productivity and PPP best practices, case studies, policy analysis, risk assessment, and emerging trends.
- *Knowledge repository:* Create a centralised database to store research reports, publications, case studies, templates, and other relevant resources.

Capacity building initiatives:

- *Training programmes:* Design and conduct training workshops, webinars, seminars, and courses on various aspects of fisheries PPPs, targeting government officials, private sector representatives, and academia.
- *Certification programmes:* Adopt certification programmes to recognise professionals with in-depth knowledge of PPP concepts and practices.

Advisory services:

- *Project support:* Offer advisory services to fisheries governments on project identification, preparation, structuring, and contract negotiation.
- *Technical assistance:* Provide technical assistance in areas such as financial modelling, risk assessment, legal frameworks, and procurement procedures.

Networking and collaboration:

- *Conferences and events:* Organise conferences, forums, and networking events to bring together stakeholders from various sectors to share experiences and lessons learned.
- *Partnerships:* Collaborate with international PPP organisations, academic institutions, and industry associations to leverage expertise and promote global best practices.

Awareness and outreach:

- *Public engagement:* Develop outreach campaigns to raise awareness among citizens about the benefits of PPPs and their role in fisheries infrastructure development.
- *Policy advocacy:* Engage with policymakers to advocate for supportive regulatory frameworks and policies that encourage PPPs in fisheries.

Performance monitoring and improvement:

- *Evaluation metrics:* Establish key performance indicators (KPIs) to measure the fisheries CC's impact, including the number of projects supported, training participants, research publications, and partnerships formed.
- *Continuous enhancement:* Regularly review the fisheries CC's activities, processes, and outcomes to identify areas for improvement and growth.

Community and reporting:

- *Internal communication:* Ensure effective communication within the fisheries CC team to coordinate efforts and share updates.
- *External communication:* Communicate the fisheries CC's activities, research findings, and success stories to the public, government agencies, private sector stakeholders, and international partners.

Long-term PPP vision for Yemen's fisheries sector:

- *Strategic roadmap:* Develop a long-term strategic roadmap that outlines the fisheries CC's evolution, expansion, and contribution to the development of fisheries PPPs.
- *Sustainability plan:* Create a plan for the fisheries CC's financial sustainability, including exploring potential revenue streams, partnerships, and funding sources.

Implementing a fisheries CC involves careful coordination, strategic planning, and collaboration with various stakeholders. This ensures that the CC becomes a valuable resource for promoting successful PPP projects, fostering knowledge exchange, and supporting the growth of the fisheries PPP sector.

Overall, a well-functioning fisheries CC can serve as a vital resource hub that empowers fisheries to engage in successful fisheries PPP projects by providing guidance, expertise, and a collaborative platform for stakeholders to work together effectively. In establishing the fisheries CC, the IRG should bear the following **best practices** in mind:

- **Clear mandate and objectives:**
 - Define a clear and specific mandate for the fisheries CC, outlining its responsibilities, roles, and areas of focus.
 - Establish the fisheries CC's objectives, aligning them with the government's overall development goals and priorities.
- **Strong leadership and governance:**
 - Appoint experienced and capable leadership from both the public and private sectors to oversee the fisheries CC's operations.
 - Ensure the fisheries CC has a reporting structure that facilitates coordination with relevant ministries and agencies.
- **Cross-functional expertise:**
 - Assemble a team with diverse skills, including legal, financial, technical, and project management expertise.
 - Recruit professionals who have experience in PPPs and a deep understanding of public sector dynamics.
- **Legal and regulatory framework:**
 - Seek to work towards developing a robust legal and regulatory framework for fisheries PPPs that outlines procedures, responsibilities, risk-sharing mechanisms, and dispute resolution mechanisms.
 - Ensure the framework is transparent, predictable, and aligned with international standards.
- **Policy alignment:**
 - Ensure the fisheries CC's activities are aligned with the IRG's overall economic and development policies.
 - Collaborate with fisheries and relevant government bodies to integrate PPPs into broader policy frameworks.
- **Stakeholder engagement:**
 - Engage with key stakeholders, including the private sector, civil society, local communities, and international development partners.
 - Foster dialogue and gather input during the establishment phase to ensure broad support.

- **Project identification and selection:**
 - Develop clear criteria for identifying and prioritising potential fisheries PPP projects.
 - Establish a systematic process for evaluating projects based on economic, social, and environmental factors.
- **Transparency and accountability:**
 - Design transparent procedures for fisheries project selection, procurement, and contracting.
 - Establish mechanisms for accountability and oversight to ensure integrity in the fisheries PPP process.
- **Pilot projects and learning curve:**
 - Consider starting with smaller pilot fisheries projects to gain experience and build credibility.
 - Use these pilot projects to refine processes and demonstrate the value of fisheries PPPs to stakeholders.
- **Regular review and improvement:**
 - Regularly evaluate the fisheries CC's performance and adjust strategies based on lessons learned and changing circumstances.
 - Continuously seek feedback from stakeholders to enhance the unit's effectiveness.
- **Long-term vision:**
 - Develop a long-term vision for the fisheries CC's role in promoting sustainable infrastructure development and economic growth.
 - Plan for the fisheries CC's evolution and expansion as the fisheries PPP ecosystem matures.

By following these best practices, the IRG can establish a fisheries CC that effectively drives the development and implementation of successful fisheries PPP projects while ensuring transparency, accountability, and sustainable socio-economic benefits.

5. Complementary sector reforms

For PPPs in Yemen's fisheries sector to be effective, several complementary sector measures will be important in **the medium-to-long term**. Unfortunately, the government of Yemen does not yet have the fiscal space to do all of these so sequencing and prioritisation would be needed. Given the MoAIF's financial constraints, it will also require important donor support. This section offers suggestions for complementary reforms. The Consultative Council can be involved in designing and providing options for funding for each of these reforms.

First, while the broader operating environment of the MoAIF is beyond its own control (e.g., security, peace process etc.), it can, however, continue its efforts to strengthen its **institutional and operational capabilities** with the support of donors. This includes adopting a more function-based organisational structure with clear mandates, responsibilities, and reporting lines. There should also be clarity in how the ministry works with local agencies and stakeholders so that better coordination and less duplication can be achieved. The reforms

should also incorporate efforts to enhance financial management, human resources, technical and research capacity, and the adoption of modern information technology including database management systems and services.

Second, effective management of fishery resources requires reliable and good-quality data. Unfortunately, for decades, there has not been a comprehensive data collection in Yemen on fish stock, its distribution, structure, breeding patterns and the state of coastal and marine ecosystems. This lack of data is made worse by the impact of climate change. As seas warm, fish stocks tend to adapt and migrate. Therefore, it will be important **to conduct a new fish stocks study**, which can reliably inform key policy decisions aimed at galvanising this critical sector (e.g., future sector strategy, policy and plan). Without this data, it will be difficult to assess the extent of overfishing, habitat degradation and potential risks to livelihoods. Given the security and resource challenges in the country, any effort in this area will be indispensable particularly if innovative and relatively easily deployable methods are strategically utilised on the most important fish species to assess factors such as exploitation status, spawning biomass, and sustainability.

Third, in addition to data limitations, a weak fisheries Monitoring, Control and Surveillance (MCS) system of human activities remain a serious issue in Yemen. Similar to many other fragile and conflict affected states, the country does have adequate resources, infrastructure, institutional capacity and governance arrangement needed to have an effective enforcement regime to safeguard its fisheries sector. While cost-effective and innovative technologies exist, they cannot be feasibly adopted in Yemen given the prevailing political and security impasse. However, as part of the process of facilitating the adoption of PPPs in the fisheries sector and the resulting engagement with the private sector, it will be important to **involve sector stakeholders in the design of future MCS system** so that greater buy-in and compliance can be attained. Once the views and concerns of sector players have been incorporated into the design, it will be easier to set up more effective formal MCS enforcement tools.

Fourth, the **widespread value chain and infrastructure-related challenges** which continue to inhibit the viability of the fisheries sector would need to be addressed. In particular, the input-supply, production, processing, and distribution segments of the fisheries value chain require significant upgrade. Also, improved access to finance, landing sites, processing facilities, power generation would be important.

Finally, as climate change poses a significant risk to the fisheries sector, it will be important to mainstream it into the country's sector policies, strategies, regulations, environmental governance and future climate action initiatives. Given the critical role the fisheries sector plays in Yemeni economy, **climate adaptation measures would also be indispensable**. These include early warning systems, appropriate insurance products, livelihood diversification, altering fishing practices, adaptive capacity building and community empowerment to strengthen resilience.

6. Action plan

Step 1: Create a pipeline of a few priority projects

- **Review past national strategy** to define a list of 3-4 priority projects that the Consultative Council can start with. Starting with a list of defined projects will allow the MoAIF to have a better sense of the skills needed in its secretariat to carry out PPP projects. The most appropriate model of PPP should be defined for each project. This can be done in collaboration with the EB and technical assistance from PPP experts.
- **Conduct complementary research:** Review existing regulations in the fisheries sector, on PPPs, and on procurement to establish what is legally feasible for the projects highlighted above. Additionally, a list of assets and services provided by the government should be established to highlight where the government can collaborate with the private sector and how.
- **Start building trust by conducting a fish stock study:** MoAIF can start building trust with the private sector by collaborating with international organisations to conduct a fish stock study. Better data on existing stocks would reduce the uncertainty the private sector faces when entering the sector.

Step 2: Build-up the technical Secretariat

- **Secure funding:** The Secretariat should start recruiting individuals that can prepare PPP projects. These experts are required to deliver the needed technical inputs into the work of the CC. Funding should be increased to attract sufficient talent to start building the team. A draft budget should be drawn up by the EB based on the estimated costs of setting up and operating the technical Secretariat before being reviewed by the government.
- **Hire a small team:** The priority in the short term should be to staff the Secretariat with a director, PPP advisor, a fisheries liaison, and a project planning manager. These individuals can initially only work part time as part of the secretariat as skills are built up and financing stabilises.
- **Use external technical assistance to build up skills within the Secretariat:** Technical experts can be hired temporarily to provide help to the new hires in the secretariat to help build their ability to prepare and manage PPP projects. Budgets should include training courses to be attended by members of the secretariat. Relationships with international organisations can be leveraged to provide contacts to other governments that have had experience building PPP expertise.

Step 3: Create the consultative council on fisheries PPP

- **Design the CC:** Develop the necessary legal framework in the form of an Executive Order, which should define the authority, scope and functions of the CC and its relationship with other government entities, stakeholders and partners. The institutional structure including organisation plan and bylaws need to be drafted, reviewed and adopted. This should be coordinated by the MoAIF and reviewed by government.
- **Decide who should be represented within the CC:** The MoAIF should then select members for the CC in consultation with private sector entities in a transparent manner. This should be done after consultations with the private sector to ensure that all stakeholders feel appropriately represented within the CC. It would be important to have clearly defined roles, selection criteria, nomination process, tenure, and rotation policies. These would need to be aligned with resource considerations as well as priority.
- **Find a funding mechanism:** A draft budget should be drawn up by the MoAIF and approved by government. The government and donors can be approached to finance the CC.
- **Provide training to members:** The CC members will decide which PPP project they should take forward. As such, they will need to develop the skills necessary to select which project should go forward and under what model of PPP. A proper training course should be designed, and the needs of existing members assessed.

- **Establish governance and operational frameworks:** Clearly identify the council's mission, vision, and strategic objectives. It is crucial to develop operational guidelines, a code of conduct, and conflict of interest policies. Additionally, both operational guidelines and financial management strategies must be carefully considered.

Step 4: Choose a first project

- **Start small:** The CC could start with a smaller pilot project for it to trial this PPP approach. The choice of pilot projects needs to be based on feasibility studies, analytical work and extensive stakeholder consultations to gather input on the most feasible small project. This will allow both the private and the public sector to become more familiar with the process of setting up and managing PPPs. It would also allow to build trust between the two partners before moving on to larger projects.
- **Choose a project with lower complexity:** Some PPP projects are more complex than others, involving more stakeholders and for longer durations of time. To build its expertise, the CC should select a project with lower complexity. Regular feedback should be solicited from stakeholders and experts to identify areas for improvement and to refine processes to enhance future outcomes.

Step 5: Adopt complementary sector reforms

- Continue to **build capacity** within the MoAIF.
- Conduct a **stock assessment** of the fish population as soon as possible, with the collaboration of donors if necessary.
- Ensure that policies and projects are **taking climate change** into account (for example, building flood resilient fish landing sites).
- Set up a feasible **Monitoring Control and Surveillance (MCS)** system.

7. Alternative approach

If the comprehensive and ambitious action plan for establishing the Consultative Council, as outlined in section 6 and the Annex to this report, cannot be fully realised in the short to medium term, a more pragmatic, incremental approach should be considered. This approach may be essential given the significant capacity constraints and challenging environment facing both the fisheries sector and the country.

The alternative approach is grounded in practical, step-by-step actions that address immediate challenges while laying the foundation for long-term capacity building and fostering dialogue among stakeholders in Yemen's fisheries sector.

- I. **Stakeholder mapping and engagement:** Begin with a thorough stakeholder mapping to identify key players. Follow this with targeted engagements with the identified stakeholders in an inclusive manner to understand better immediate needs, priorities, and challenges. Discuss the concept of the Consultative Council with these stakeholders and secure necessary buy-in.
- II. **Defining objectives and scope:** In collaboration with the stakeholders, identify what the objectives, scope, and roles of the Consultative Council should be. Define shared sector goals, priority interventions, and determine whether these should be addressed

at the national, regional, or local level. The focus should be on what is feasible within the Yemeni context and what resonates with the key players of the sector.

- III. **Consultations and framework development:** Conduct further consultations with the stakeholders identified above to gather insights and inputs on initial priority projects and policies. Based on these consultations, develop the legal and institutional framework for the Council. This framework should include the Council's legal features, organisational structure, and processes.
- IV. **Establishment of the Secretariat:** While the current EB is capable of supporting the key elements outlined under I to III, at this stage, the new PPP Secretariat should be designed based on the specific needs, priorities, and challenges of the fisheries sector, but also in alignment with the objectives, scope, institutional and legal framework, and organisational processes of the Consultative Council.
- V. **Budget and resource allocation:** Secure the necessary budget and financing to operationalise the Council. Once resources are in place, proceed with recruitment, staffing, and capacity-building measures. Ensure that technical expertise in sector-specific knowledge, risk and project management, financial modelling, negotiation, and legal skills is included.
- VI. **Establishment of subcommittees:** Given the significant capacity constraints, establish a few subcommittees in key areas such as financial and project evaluation to pool resources and enhance efficiency.
- VII. **Governance and operational framework:** Set up the governance and operational framework, including financial management and monitoring and evaluation systems.
- VIII. **Pilot projects:** With all elements in place, initiate a few small-scale pilot projects based on the key priorities identified at the inception of the process. Utilise PPP to test the Council's effectiveness.

This sequenced approach will ensure that the Consultative Council is established in a manageable and practical manner, addressing immediate needs while setting the stage for sustainable development in Yemen's fisheries sector.

Initial constraints	Potential solutions
Lack of trust	Identify quick wins to demonstrate collaboration benefits; use Public-Private Dialogues (PPDs) to build trust through open communication.
Political instability	Focus on technical issues; strengthen resilience and support by engaging a wide range of stakeholders.
Resource constraints	Form partnerships, seek donor support, and involve private sector actors.

Diverse and competing interests	Facilitate inclusive participation and build consensus through PPDs.
Weak capacity	Integrate capacity-building and technical assistance; use hands-on, tailored approaches and embedded experts for better absorption.

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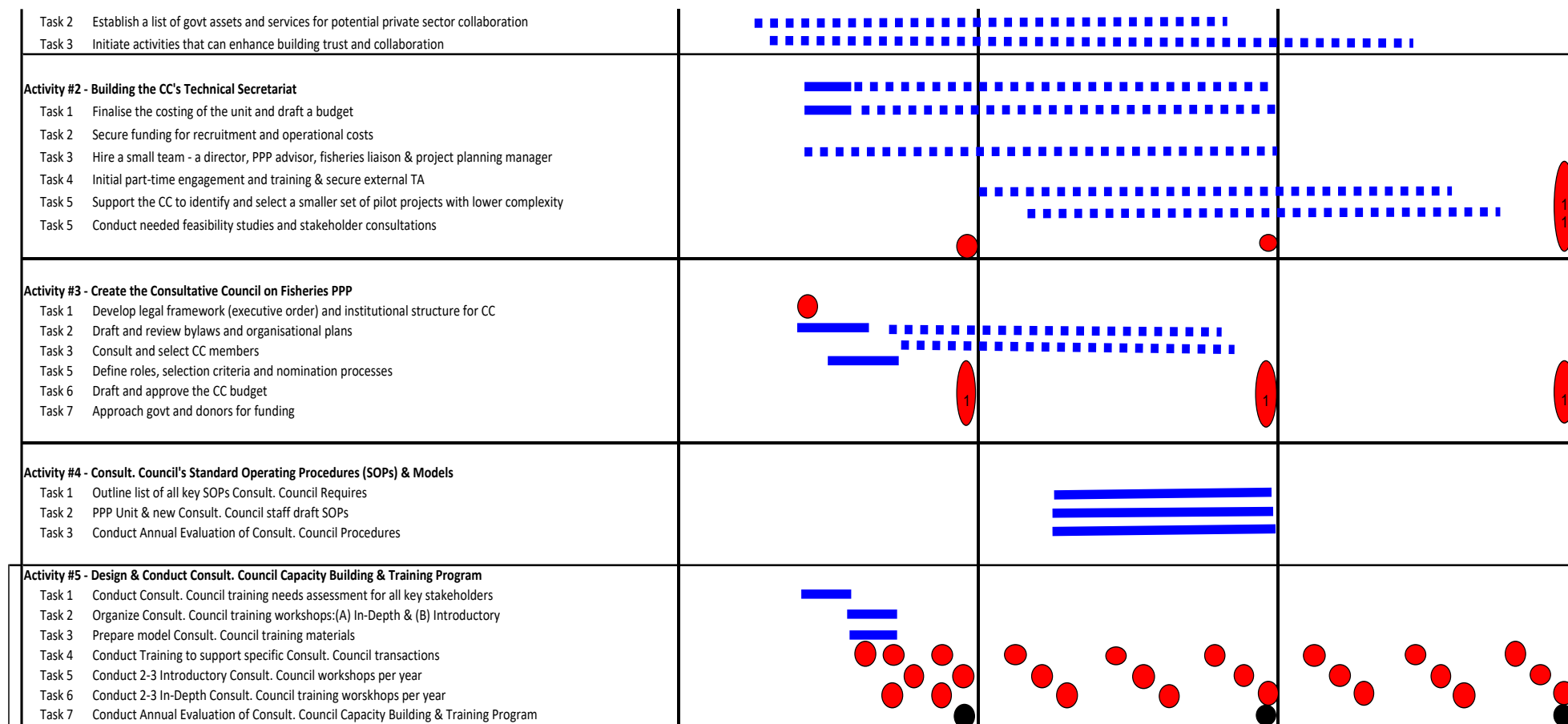
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9. Annex

Action plan chronograph for Yemen fisheries sector PPP strategy implementation



Proposed Secretariat staff responsibilities

- **Director:**
 - Establishing a fully functional Secretariat that delivers fisheries PPP projects in which the private sector assumes financial, technical, construction and/or operational risks in connection with the provision of the public service.
 - Where needed, hiring, appointing, and managing the transaction advisors to ensure that the potential fisheries PPPs are properly prepared and that bidding documents are suitable for market issuance, to support the management of the tender process and identification and selection of a preferred private sector PPP counterpart.
 - Developing standard methodologies/guidelines for fisheries PPP project preparation, competitive bidding, negotiation, and contract management of PPP contracts, including in the following areas:
 - Project inception including screening for fisheries PPPs (assessment reports)
 - Terms of Reference (ToR) for transaction and other advisors
 - PPP feasibility studies
 - PPP bidding documents
 - Negotiation guidelines
 - PPP contract management and evaluation
 - Developing model fisheries PPP contracts, where possible, for the various PPP structures. The development of these model contracts is a very intensive process requiring consultation and negotiation of risk issues with public and private sector bodies.
 - Overseeing the execution of entire work plan of activities, including the preparation and completion of the fisheries PPP transactions, the strengthening the legal and institutional framework, PPP capacity-building, and other special PPP initiatives.
 - Supervising the Fisheries Liaison's outreach and capacity-building initiatives.
 - Executing the management of the budget and reporting functions.
 - Ensuring the effective knowledge-transfer and on-the-job-training occurs from the PPP project consultants/ advisors to the staff of the fisheries CC, to ensure the long-term capacity of the CC as an institution.
 - Effectively representing the fisheries CC to private infrastructure sector investors and lenders interested in bidding on PPP opportunities.
 - Coordinating the development of the fisheries CC's organisational procedures, including the development of fisheries PPP guidelines.
 - Reviewing fisheries PPP consultant and transaction advisor qualifications and proposals and selecting preferred bidders.
 - Supervising and reviewing the fisheries PPP feasibility analyses, including value for money and affordability of fisheries PPP project risk-allocation structures and overall viability of the project.
 - Evaluating fisheries PPP proposals from private developers.
 - Communicating with private lenders and investors on fisheries PPP investment requirements, financing strategies, and opportunities; and
 - Officially representing the fisheries CC at training and capacity-building events sponsored by MoAIF and the CC.

- **Fisheries Liaison:**
 - Developing and implementing, under the guidance of the Director, a complete communications plan developed for the public sector and the domestic and international private sector.
 - Developing, implementing, and providing a strong and cohesive capacity building programme that will include regular or arranged training at all levels as well as PPP certification.
 - Managing a PPP knowledge base for all stakeholders including MoAIF and other public and private sector stakeholders.
- **Project Planning Manager:**
 - Through the Director and with the support of his staff, liaise with senior management and the affiliated operating companies in developing a pipeline of potential fisheries PPP projects.
 - Overseeing the assessment (very high level) and prioritising of the fisheries PPP projects in the pipeline.
 - Managing the preparation for pre-feasibility studies to look at the financial, legal technical and socio-economic feasibility of a project.
 - Making a preliminary assessment of the qualitative value for money and affordability of the project.
 - Preparing an assessment report on each potential fisheries PPP project that either recommends or does not recommend the allocation of additional resources to the project as a PPP.
 - Presenting the assessments to the Director, senior management, and the relevant fisheries.
- **PPP Legal Specialist:**
 - Review all legal issues related to specific fisheries PPP projects, whether at the pre-feasibility, feasibility, or project management level.
 - Vet and comment on specific contracts and agreements.
 - Prepare all legal (e.g., contract) and tendering documents.
 - Provide written opinions on legal and regulatory matters related to fisheries project development and management.
 - Contribute to the development of fisheries PPP guidelines.
 - Support the preparation of standardised fisheries PPP contract provisions.
 - Support the management of legal services that may be outsourced by the fisheries CC.
 - Provide training to fisheries, CC staff, and others, as requested.
- **PPP Finance Specialist:**
 - Advise on the feasibility studies required to demonstrate project financial viability.
 - Advise on the appropriate financial structure for these projects based on a knowledge of the market's ability to provide finance and bear risk.
 - Ensure that the national and fisheries governments' explicit and implicit fiscal obligations and risks are determined in the feasibility study stage.
 - Analyse and/or prepare financial models, both in the feasibility studies and in proposals submitted as part of the competitive bidding process to ensure that the

- projects are affordable, achieve value for money and are financially sound and sustainable with appropriate risk allocation, and build such models where needed.
 - Contribute to the development of fisheries PPP guidelines.
 - Support the hiring and managing of outsourced financial consultants and transaction advisors, as necessary.
 - Perform such other tasks as assigned by the Director as may become necessary.
- **PPP Technical Specialist:**
 - Project planning and studies in determining the technical feasibility of the project and whether to commit additional resources to a specific fisheries PPP project. Responsible for identifying major technical issues that may arise and providing a recommendation on the type of fisheries PPP that may be preferable.
 - Structuring and transaction oversight to assist in creating technical and financial feasibility studies, as well as, identifying, procuring, and managing the technical consultants and transaction advisors on larger projects.
- **PPP Monitoring and Evaluation, Research and Learning (MERL) Specialist:**
 - Reviewing the contract and all other pertinent documents (e.g., feasibility study) and developing a template for managing and monitoring the contract.
 - Overseeing the managing and monitoring of contracts for technical and financial compliance.
 - Identifying and notify the private sector investor/ operator of any breaches in of the contract and develop a plan to resolve any outstanding issues at the appropriate level.
 - Managing the termination (planned or early) and hand-back phase of the contract.
 - Providing the Director and fisheries CC senior management with ongoing information of the status/ performance of the project and specific issues such as level of risk exposure to the fisheries, the CC and/ or the Ministry of Finance.

Potential draft outline of a PPP practical guidelines manual

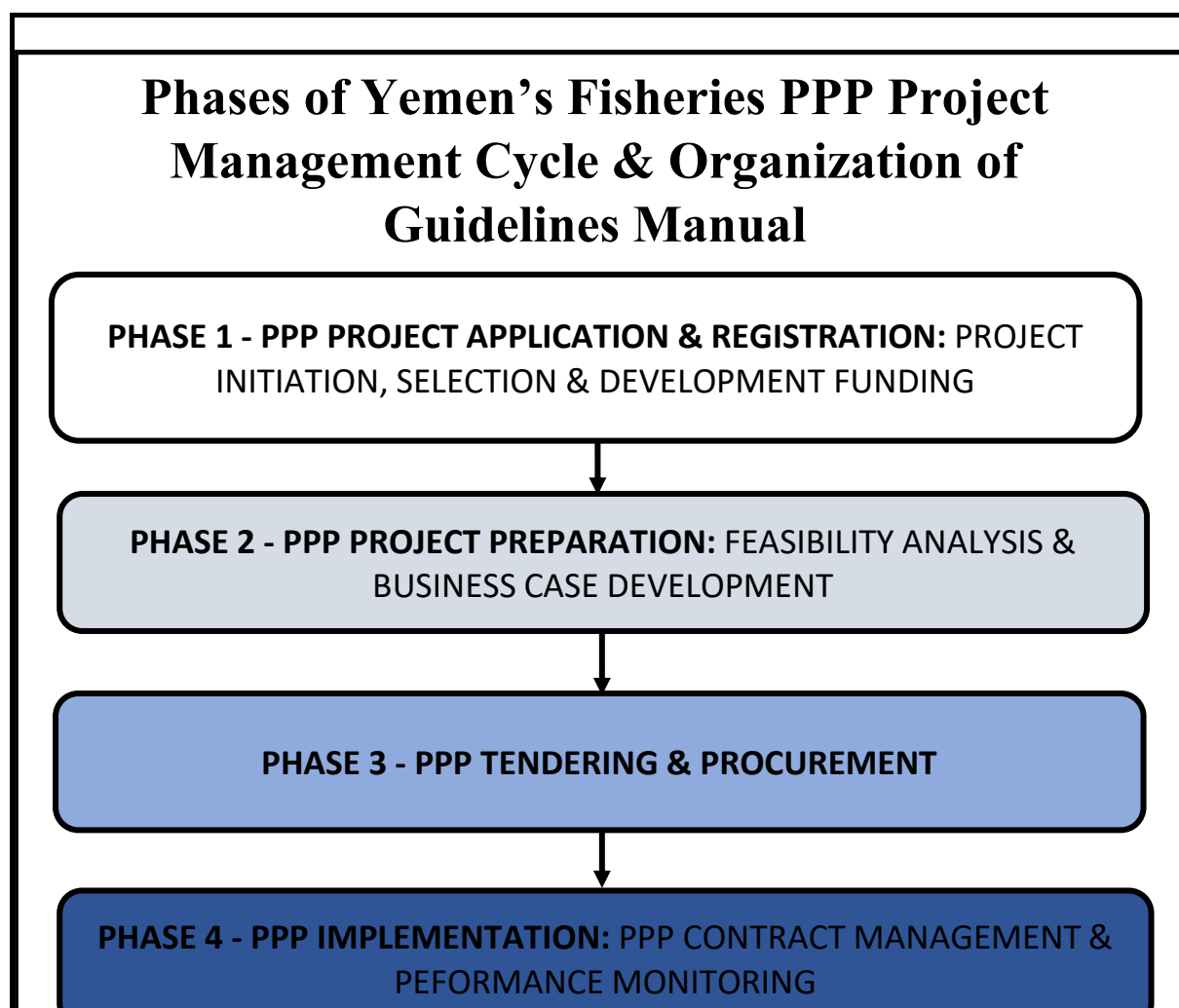
Introduction:

1. **Introduction: Background and purpose of Yemen's Fisheries PPP Guidelines Manual**
2. **How to read and use the Fisheries PPP Guidelines**
 - Intended audience.
 - Common, standardised organisation, format, and presentation of each "Fisheries PPP Guideline".
 - How to use and apply the Guidelines to actual Fisheries PPP projects.
3. **Fisheries PPP Primer: Basic introduction and overview of fisheries PPPs in Yemen**

- Primer: Understanding what Fisheries PPPs are, their rationale, basic structuring options, and international record.
- Understanding Yemen's planned framework for Fisheries PPPs.
- Overview of the Fisheries PPP Project Cycle in Yemen:
 - Phase 1: Fisheries PPP Application and Registration: Project Initiation, Selection and Development Funding.
 - Phase 2: Fisheries PPP Preparation: Feasibility Study and Business Case Development.
 - Phase 3: Fisheries PPP Tendering and Procurement.
 - Phase 4: Fisheries PPP Implementation: Contract Management and Performance Monitoring.
- Discussion of Yemen's Fisheries PPP experiences to date, issues encountered, and priorities going forward.

The organisation and presentation of this Fisheries PPP Guidelines Manual matches the four phases Yemen's overall Fisheries PPP Project Life Cycle, depicted below:

FIGURE 2: The four key phases of Yemen's fisheries PPP project life cycle



The design of this Fisheries PPP Guidelines Manual is based upon the need to describe and explain how to carry-out of a sequence of practical "Procedures." Each procedure is presented in its recommended chronological sequence within the overall Fisheries PPP project management cycle. Moreover, the format for presenting each procedure follows a common outline:

Each procedure of the Fisheries PPP Guidelines Manual can be organised and presented as follows:

- **“WHAT?”- Definition:** This provides in 2 or 3 sentences a clear but brief definition of what this given procedure is.
- **“WHY?” - Rationale:** This provides in about 1 paragraph *WHY* the procedure is needed and what its importance is, including explaining what the risks and costs would be if this procedure were not completed.
- **“WHO?” - Institutional responsibility:** This identifies which specific organisation(s) in Yemen is responsible for conducting and completing the procedure.
- **“HOW” – Instructions for implementing the procedure:** This provides in about 1-3 pages a detailed, practical description of *how* to implement this given procedure, including providing model templates and “tools” to use. This section sub-divided to list and describe:
 - **Required inputs**
 - **Sequence of specific tasks to complete and tools to apply**
 - **Required outputs**
- **“WHEN?” –estimated time required:** This estimates the approximate amount of time required to complete the procedure.
- **“HOW TO DO IT RIGHT?” – A checklist of lessons learned, case examples and good practices:** Finally, each procedure concludes with a list of practical, recommended “*dos and don’ts*” to follow, including common mistakes to avoid, when implementing a procedure. These features practical recommendations and, when available, summary descriptions of Fisheries PPP case examples from the region that illustrate the specific Fisheries PPP procedure. Such practical suggestions can help ensure better success in implementing Fisheries PPPs in Yemen.
- **ANNEXES:** Several Fisheries PPP procedures will require the use of lengthier Fisheries PPP models or template documents, such as a model Terms of Reference (ToRs) for Fisheries PPP Transaction Advisors. As needed, lengthier Fisheries PPP templates and tools are included as Annexes to each relevant Phase.

Phase 1: Fisheries PPP project application and registration phase: Fisheries PPP project initiation, screening, and selection

- 1.1 Fisheries' public-private coordinating council's (CC) Screening and Selection of Suitable Candidate Projects for Fisheries PPP
- 1.2 CC's Completion of the Fisheries PPP Project Assessment Application (Memorandum on Partnership Project Proposal)
- 1.3 CC's Review and Approval/Disapproval of the Fisheries PPP Project Assessment Application and Fisheries PPP Project Registration
- 1.4 Locating Project Development Funding for Phase 2's Fisheries PPP Preparation and Feasibility Study

Annexes to Phase 1:

- ANNEX 1.A: Blank Template Outline for The Fisheries CC's PPP Project Assessment Application
- ANNEX 1.B: Blank Template Outline for Sample Terms of Reference for Fisheries PPP Advisors for Feasibility Study and Tendering and Procurement Phases

Phase 2: Fisheries PPP project preparation: Completing the fisheries PPP feasibility and business case

- 2.1 CC Appoints the Fisheries PPP Project Officer and Steering Committee and Technical Committee and Prepare the Work Plan for Completing the Fisheries PPP Feasibility and Supporting Tendering and Procurement
- 2.2 CC Appoints the Fisheries PPP Transaction Advisor to Support Completion of the Fisheries PPP Feasibility Study and Business Case
- 2.3 Develop and Draft the Fisheries PPP Project's Required *Output* Levels of Service
- 2.4 Designing and Managing the Fisheries PPP Project's Stakeholders Management Plan
- 2.5 Conduct the Fisheries PPP Affordability and Fiscal Sustainability Analysis
- 2.6 Conduct Project Demand Analysis
- 2.7 Conduct Project Technical Feasibility Analysis
- 2.8 Develop Project Financial Model and Conduct Fisheries PPP Project Financial Feasibility Analysis
- 2.9 Conduct and Review Legal and Institutional Feasibility Analysis
- 2.10 Project Environmental and Social Impact Assessment
- 2.11 Fisheries PPP Project Risk Identification

- 2.12 Fisheries PPP Project Risk Analysis and Mitigation Identification
- 2.13 Recommended Fisheries PPP Risk Allocation Structure
- 2.14 Assessing Private Sector Market Interest in and Appetite for the Fisheries PPP Opportunity
- 2.15 Fisheries PPP Unit's Review of and Fisheries CC's Approval/Disapproval of the Final Fisheries PPP Feasibility Study and Business Case

Phase 3: Fisheries PPP tendering and procurement

- 3.1 Preparing/Updating the Work Plan and Implementation Schedule for Phase 3 Fisheries PPP Tendering and Procurement
- 3.2 CC's Incorporation of Fisheries PPP Council's Instructions and Recommendations on Fisheries PPP Feasibility and Business Case and Completing Required Pre-Tendering Preparations
- 3.3 Drafting and Issuing a Fisheries PPP Project Information Memorandum and Conducting Fisheries PPP Investors' Conferences
- 3.4 Drafting and Issuing the Request for Pre-Qualifications Document
- 3.5 Receiving and Evaluating Submitted Qualifications and Announcing the Pre-Qualified Bidders Short-list
- 3.6 Preparing Fisheries PPP Project Physical Site Inspections (and any Virtual Data Rooms) for Private Bidders
- 3.7 Designing and Drafting the Draft Fisheries PPP Agreement
- 3.8 Designing and Issuing the Draft Fisheries PPP Request for Proposal (RfP) and Responding to Bidders' Questions
- 3.9 Issuing the Final Tender Documents and Receipt of Final Technical and Financial Bids
- 3.10 Fisheries CC's Evaluation of Fisheries PPP Technical Proposals
- 3.11 Evaluation of Fisheries PPP Financial Bids and Selection of Preferred Fisheries PPP Bidder.
- 3.12 Fisheries CC's Review and Approval/Disapproval of Final Fisheries PPP Contract
- 3.13 Designing and Establishing the Public Contracting Body's Fisheries PPP Project Management Unit (PMU)
- 3.14 Public Authority's Announcement of Fisheries PPP Award Decision

Annexes to Phase 3:

- Outline of Suggested Contents for a Fisheries PPP Request for Pre-Qualifications (RfQ)
- Outline of Suggested Contents for a Fisheries PPP Request for Proposals (RfP)
- Outline of Suggested Contents for a Fisheries PPP Agreement

Phase 4: Fisheries PPP contract management and performance monitoring

- 4.1 Project Management Unit's (PMU's) Monitoring the Fisheries private partner Progress in Reaching Financial Closure
- 4.2 PMU's Monitoring Fisheries PPP Performance during Construction
- 4.3 PMU's Monitoring Performance during Operation and Service Delivery Stage
- 4.4 Managing Requests and Instances of Fisheries PPP Payment and Tariff Adjustments
- 4.5 Managing Requests to Revise or Renegotiate Fisheries PPP Contracts
- 4.6 Managing Fisheries PPP Contract Disputes and Alternative Dispute Resolution Techniques
- 4.7 Contract Management at the End-of-Fisheries PPP Contract Stage.

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